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The scientific names of Ferdinand Karsch's odonate taxa

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Abstract

This paper explains the scientific names given to dragonflies by the German entomologist Ferdinand Karsch (1853-1936), as well as the names given by other authors to genera, into which taxa described by him are classified presently. First Karsch's life and work are described. Following the explanation of the names, there is a discussion of the preferences evident in his naming conventions, his relationships with other scientists, and his significance for our understanding of dragonflies.

Zusammenfassung

In dieser Arbeit werden die wissenschaftlichen Namen erklärt, die der deutsche Entomologe Ferdinand Karsch (1853-1936) an Libellen vergeben hat, ebenso die Namen der Genera anderer Autoren, in die von Karsch beschriebene Arten heute eingeordnet sind. Doch vorher werden Leben und Wirken von Karsch beschrieben, im Anschluss an die Erklärung der Namen folgt eine Erörterung, welche Präferenzen in seiner Namengebung zu erkennen sind, seines Verhältnisses zu anderen Wissenschaftlern und seine Bedeutung für die Kenntnis der Libellen.

Key words: Odonata, dragonflies, Germany, type material, history of odonatology, biography, taxonomy, nomenclature

Preface

The International Code of Zoological Nomenclature recommends providing the derivation of all new scientific names when published. However, this was not the case more than a century ago, when scientific names were required to be in Latin or Latinized Greek, and scientists normally took it for granted, that their readers could deduce what such a name was meant to say. Since this is no longer the case, it seems sensible to provide such explanations, which might reveal information about diagnostic features like appearance, morphology, similarity to other taxa, origin, behavior, habitat of the respective taxa, about the collector, or the author's relationship to other individuals. Therefore, this paper aims to explain the scientific names that Ferdinand Karsch assigned to odonates at the end of the 19th century.

Material and Methods

As to the biographical part aside from the obituaries by Horn (1937a) and Hering (1937), the biographies by Schmidtke (2006), Grau (2009), and Bauer (2015) provide thorough information on Karsch's life and work. These biographies, however, focus particularly on Karsch's role as a pioneer of decriminalizing same-sex love. Schmidtke's bibliography

of Karsch's publications (2001) is especially valuable, offering a good overview of his work. Schmidtko, however, failed to include Karsch 1898b and her entry No. 364, listed for 1924 is dated 1906 by Bauer (2015: 1).

The access to digitized material at the archive of the Natural History Museum at Berlin was blocked by a cyberattack a few years ago. For this paper I therefore only was able to obtain two portraits of Karsch. The list of material folders concerning him, provided by the archive, failed to reveal any documents directly related to the main topic of this publication. Additional information about the events that hampered Karsch's professional advancement (cf. Horn 1937b: 441) will only become available after the archive's planned relocation, and therefore could not be taken into account here.

For the main part of this treatise Karsch's scientific names for Odonata have been extracted from Bridges (1994) and have been checked by means of Paulson et al. (2025) to ensure that taxonomic changes since then have been followed up. The first descriptions of the taxa have been accessed, the Greek and Latin words which are at the base of the names have been listed, the probable meaning of the names has been explained resorting to the first description, if possible, if not, conjectures have been made as how they might apply. The names have been listed in their chapters in alphabetical order to facilitate how to find the respective explanations (for the valid names of synonyms at the end there is an index, under what name given by Karsch they might be found). Karsch's generic names have been treated first, then the species names, subsequently the actual genera, into which Karsch's species now are sorted, as they are an essential part of the scientific names. Finally, I provide some considerations about Karsch's preferences in nomenclature, about his synonyms and homonyms, his relation to other scientists and his significance for odonatology.

Life and work

From Münster to Berlin (Fig. 1)

Ferdinand (Anton Franz) Karsch (1853-1936) was born at Münster (Westphalia) as the second child of three and the only son to Anton (Ferdinand Franz) Karsch (1822-1892) and his wife Maria (Catharina Johanna) Karsch, née Haack (?? – 1856). Anton Karsch, who came from a Münster family, earned a doctorate in Greifswald in 1846 with a thesis on snails and half a year later a medical doctorate in Berlin. He subsequently qualified as a lecturer of descriptive natural sciences in Bonn in 1847. From 1848 onward, he practiced medicine in



Fig. 1: Karsch in his first years at the Museum of Natural History Berlin © Archiv MfN, ZM B I / 531 (C-510)

his hometown, but in 1852 he was appointed professor of natural sciences at the Münster Academy, whose Zoological Section he founded. He wrote books on insects, as well as the first reliable flora of Westphalia. His entomological collection, which after his death was transferred to the Natural History Museum Münster (Berger 2001: 59), is mentioned by Kolbe (1877; 1878) as one source for the compilation of the odonate fauna of the Münster area. Thus, his son Ferdinand gained such a reliable knowledge of species and methods already in his youth that, while still at school, he described the spider fauna of Westphalia in a series of treatises under the pseudonym Paul Grüne. After graduating from school, he enrolled at the Münster Academy to study natural sciences for four semesters (1873-1875), specializing in zoology, botany and paleontology, and then he continued his studies in Berlin, which he completed in December 1877 with a doctoral thesis on gall midges. Immediately afterward, in January 1878, he obtained a position as an assistant at the Berlin Zoological Museum, which from December 1888 was integrated into the newly built Natural History Museum on Invalidenstrasse. He continued working at this museum for over 40 years until his retirement in 1921, and in April 1899 he was promoted to curator of the entomological collection. In addition to his duties at the museum, in 1881, he habilitated at Berlin University (i.e., he passed an examination, which entitled and obliged the holder to give lectures at the university and passing that examination was considered a prerequisite for a position as a professor) with a thesis on 'The Importance of Entomology'. Subsequently, in addition to his teaching duties at the university, which he fulfilled until 1914, he also taught at the agricultural college (Landwirtschaftliche Hochschule) for 11 years, initially as a private lecturer and then, from 1889, with the title of professor. How this teaching position came about is described in a report by Walther Horn about a conversation with the elderly Karsch in May 1931, which is archived in the Deutsches Entomologisches Institut in Müncheberg. Karsch had asked his superior, the museum director Wilhem Peters (1815-1883), for a raise to his meager salary. Peters replied that while being sorry that he couldn't do anything for him, he would be open to Karsch accepting a lectureship at the university. He suggested Karsch contact the Ministry of Culture. The responsible official there had nothing available, but through the Ministry of Agriculture, he arranged for Karsch to be offered a lectureship in entomology at the Agricultural College, which Peters, albeit grudgingly, allowed Karsch to accept.

Regarding this teaching activity, Hering (1937: 102) reports in Karsch's obituary that even at that time former students of Karsch praised "sein umfassendes Wissen und seine anschauliche Lehrweise [his comprehensive knowledge and his vivid teaching style]."

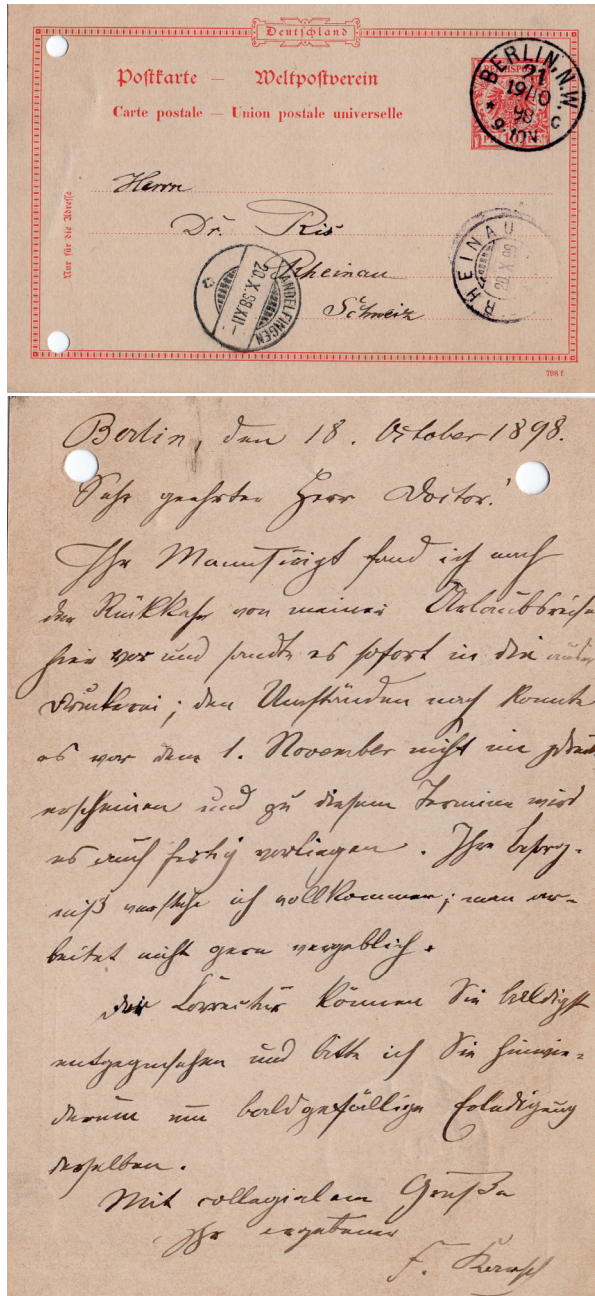
Karsch as editor of two journals (Fig. 2)

Alongside to his work at the museum and his teaching duties, Karsch took on further responsibilities. In 1884, at the request of the Berlin publishers Friedländer & Sohn, he assumed editorship of the 'Entomologische Nachrichten', which he kept until 1900. This journal had been founded in 1874 by Friedrich Katter (1842-1913), an entomologist and teacher in Putbus on the island of Rügen, who had edited it until then. As a notice from the publishers in the July 1884 issue of this journal reveals, they had completely severed ties with the journal's founder because they were dissatisfied with his work as editor.

Karsch's editorship of a second entomological journal, the 'Berliner entomologische Zeitschrift', arose from the split within the Berlin entomological community in 1881, a matter which

can only be briefly touched upon here. In 1856, at the instigation of the energetic young private scholar Gustav Kraatz (1831-1909), the 'Berliner Entomologischer Verein' was founded as a meeting place for exchanging specimens, for lectures, and for discussion. From 1857 onward, it published the 'Berliner entomologische Zeitschrift', which Kraatz edited. However, his aims extended further: it must be borne in mind that Germany at that time consisted of numerous autonomous territories, which were only united in 1871 into a single empire as a confederation of princes under the leadership of the Prussian king. Prussia, the capital of which was Berlin, at that time held about two thirds of the territory of this confederation. Type specimens were found in numerous private collections wide spread throughout Germany and were thus difficult to access. To counteract this fragmentation, Kraatz expanded the journal in 1875 to become the 'Deutsche

Fig. 2a+b: Document regarding Karsch's work as an editor: Postcard to F. Ris in October 1898 about the handling of a manuscript © Senckenberg, Frankfurt. For the transcription of the text see Appendix I.



entomologische Zeitschrift'. He also suggested that an All-German Entomological Collection should be established. Reasonable as most of Kraatz's endeavors were, he pursued them without regard for the interests of others and with vehement polemics. This led to a split in the Berlin entomological community in 1881, about which more information is found in Göllner-Scheiding (1985: 316-317) and Wessel (2007: 157-163). The 'Entomologische Verein in Berlin' elected a new board, in which Kraatz, although still being a member of the society, was no longer on any of the society's leading positions. Its journal was published again under the old name, while Kraatz continued to serve as editor of what he falsely named "Deutsche Entomologische Zeitschrift (Berliner Entomologische Zeitschrift und Deutsche Entomologische Zeitschrift in Vereinigung) [German Entomological Journal (Berlin Entomological Journal and German Entomological Journal in Union)]," for the publication of which he founded a 'Deutsche entomologische Gesellschaft', of which he remained chairman. In 1884 Hermann Julius Kolbe (1855-1939) was elected editor of the journal of the 'Berliner Entomologischer Verein', who before becoming an assistant at the Zoological Museum in Berlin in 1882 and becoming a member of the Entomological Society in 1883 together with Karsch, had attended the same school at Münster as Karsch, but, being two years younger, not in the same age group, and studied there at the academy natural science under Karsch's father. But a harsh attack by Kraatz (1884), who disapproved of Kolbe's acceptance of Darwin and Haeckel's theories of evolution, and who probably wanted to regain the editorship (see Kraatz 1886: 254), led to Kolbe being voted out of office in the autumn of 1885; no one else, however, was willing to take over this task (Kraatz 1886: 253-254). But with this and other acts of hostility, Kraatz had obviously gone too far. In January 1887 he was expelled from the society, for which he held Karsch primarily responsible (Kraatz 1887: 13-14).

In 1885, no editor for the 'Berliner entomologische Zeitschrift' had been found; but on the cover of the next issues, we find the remark: "Alle für die Zeitschrift bestimmten Manuskripte nimmt der Bibliothekar Dr. F. Karsch ... entgegen [All manuscripts intended for the journal will be accepted by the librarian, Dr. F. Karsch...]," meaning that he took responsibility for the continuation of the journal. Karsch was not referred to as editor on the title page until 1889, after the societies had finally been separated and its assets had been legally awarded to the 'Berliner Entomologischer Verein'. Karsch however ended his editorship of this journal at the end of volume 39/1894, which he announced to the members in a statement (1895b). The reason for this was that, from 1894 onward, he no longer found support within the board to equip the journal with elaborate illustrations, which could not be covered by membership dues and would have had to be paid for from the association's assets. Karsch was convinced that this financing would be recouped within a few years as the journal gained more subscribers. Disappointed by the lack of support, he resigned his position and left the association.

Karsch's research work at the Zoological Museum in Berlin

Let us now have a look at the requirements that Karsch's workplace at the Zoological Museum entailed. To this institution in the capital of a great power with colonial ambitions flowed collections from all over the world, but especially from the German colonies in Africa and New Guinea. Göllner-Scheiding (1985: 314), who was certainly able to judge

this based on her own experience, describes what was required in this situation as follows: "Die Kontinuität der Museumsarbeit muß ständig gewährleistet sein; eine Sammlung, in und an der nicht gearbeitet wird, ist praktisch tot. Sie alle (= die Mitarbeiter) wurden, auch nach dem Umzug in das „Museum für Naturkunde“ in der Invalidenstr. im Jahre 1888, ihrer vordringlichen Aufgabe, der Pflege und Mehrung der ihnen unterstellten Sammlungen gerecht, wenn auch in unterschiedlichem Maße. Einen großen Teil ihrer Zeit nahm die Registriertätigkeit, die Determination, Ausleihe und Beratung in Anspruch, auch mußte die Schausammlung im neuen Haus mitgestaltet werden [The continuity of museum work must be constantly ensured; a collection that is not worked on is practically dead. All of them (= the staff), even after the move to the "Museum of Natural History" on Invalidenstrasse in 1888, fulfilled their primary task of caring for and expanding the collections under their care, albeit to varying degrees. A large part of their time was taken up by cataloging, identification, lending, and advising; they also had to help design the exhibition in the new building]."

An impression of Karsch's work at the museum can be conveyed by his numerous publications up to 1900, as listed in Schmidtke (2001). Most of these deal with the description or classification of various orders of arthropods, into which he gradually familiarized himself, prompting Hering (1937: 101) to remark: "Er war einer der letzten Entomologen, die noch das gesamte Gebiet der Entomologie beherrschten, einschließlich der Spinnentiere [He was one of the last entomologists who still mastered the entire field of entomology, including arachnids]." The respective focal points of his work can be seen from the following list: from 1878 up to 1893 many papers deal with arachnids, as had his first publications in his time at Münster, with scorpions from 1879 to 1886. Gall-forming insects are found from 1878 until 1887, other dipterans from 1879 to 1888, myriapods from 1879 to 1888, coleopterans from 1881 to 1887, hemipterans from 1884 to 1895, lepidopterans from 1884 to 1900, orthopterans from 1886 to 1900. The last major group he familiarized himself with from 1889 to 1900 was the Odonata. Furthermore, in the years 1885 to 1887, in an effort to make entomological progress available to other scientists, he published a list each year of insect species and varieties newly described for Europe in the preceding years; in 1889 and 1890, these lists were limited to Germany only. He did not publish such a compilation in 1888, presumably because he faced additional demands due to the relocation of the Zoological Museum to Invalidenstrasse.

We have seen, that the Odonata were the last order to which Karsch focused his zoological treatises. In the 12 years from 1889 until 1900, when he suddenly ended his entomological publications, Karsch authored 36 papers dealing with dragonflies. These, of which only eight comprised more than 10 pages (1889d, 1890b+d, 1891c+f, 1893a, 1899b, 1900a), accounted for 23.8% of his total published pages in this time (307 out of 1292). The percentage of synonyms and homonyms among his new odonate taxa and Karsch's significance for odonatology will be discussed in the chapter 'Conclusions'.

His first publications on Odonata give an idea of how he familiarized himself with this field. In 1889, seven of his 14 publications dealt with dragonflies, in four of which he described a single species from the collection of the Zoological Museum, one calopterygid from Africa (1889a), three libellulids, one from South America (1889b), Madagascar (1889e) and Sri Lanka (1889f) respectively. In a further paper, he presented two new species of Aeshnidae

from the Australasian region (1889c), offering a key to their systematic position within the family. The other two publications referred to the systematics of the libellulids: in one, he established a group within this family based on a characteristic of the wing venation (1889d); the other one was a review of the elaborate work of the English scientist William Forsell Kirby (1844-1912) on that family published earlier in the same year (1889g). In other words, in his search to identify new species, he thoroughly familiarized himself with the systematics of the respective families, which knowledge enabled him to go on with his taxonomic work.

In his odonatological work Karsch continued to focus on libellulids the following year. They were subject of four of his five publications on Odonata in 1890: two were descriptions of a single new species (1890a+c), one again was a treatise with seminal information on the libellulid systematics (1890b), one described the libellulid species from the collection of Heinrich Dohrn at Stettin (1890e), who at that time had not yet collected on Sumatra (see Fliedner 2021b: 7); the last one pertained to the systematics of gomphids (1890d), which means that he had thoroughly acquainted himself also with this family.

Of the 8 treatises in 1891, two deal with the more precise delimitation of genera, one of *Idionyx* (1891a), the other one of *Orthetrum* and *Thermorthemis* (1891b), two describe larger collections from West Africa (1891c) and Sumatra (1891d), one deals with the systematics of the Aeshnidae (1891f), supplemented by the next with the description of eight new species of this family (1891g), and two describe new species from South America (1891e; 1891h).

In 1892, his odonatological treatises referred to recently collected species, two calopterygids from China (1892a), a macromiid from Cameroon (1892b) and some aeshnids from Java (1892c). Later, most of the respective publications describe larger collections from various parts of Africa (Togo 1893a, 1898a; Cameroon 1893b, 1894b, 1896b, 1899a; Eastern and South Africa 1899b) and finally from the Moluccas and Borneo (1900a). In addition to these there is a description of a libellulid species (*Olpogastra lugubris*) from Sudan (1895a), which had been in the museum collection, collected and named (as *Libellula lugubris*), but not described, over half a century ago by the explorer and zoologist Christian Gottfried Ehrenberg (1795-1876). Furthermore, there were three brief notes (Karsch 1894a+c; 1896a) stemming from his disagreement with W.F. Kirby, the last of which is an ironic and dismissive criticism without naming the author. That confrontation, which was still continued in Karsch 1900a (p. 212), is described in detail in the careful and highly readable review by Hämäläinen (2017).

That Karsch, in addition to all his work at the museum, the agricultural college, and as editor of two journals, also considered how to optimize working conditions in connection with the planned relocation of the Zoological Museum to Invalidenstrasse is demonstrated by a document preserved in the German Entomological Museum in Müncheberg. According to Marwinski (1973a: 432 there is a 27-page "Eingabe von Karsch die Zukunft des Kgl. Zoologischen Museums betreffend [Submission by Karsch concerning the future of the Royal Zoological Museum]" from the year 1886 kept in the archive there.

But his efforts were soon faced with major challenges. It is necessary to address the difficulties Karsch experienced at his workplace, which arose from the attitude of the museum director, Karl Möbius (1825–1908), who was Karsch's superior from 1887 to 1905. These are described by Horn (1937b: 440-441) as follows: "Unter K. Möbius hat sich weiterhin eine

gewisse Tragödie abgespielt, die einen der tüchtigsten Kustoden des Museums betroffen hat, Ferdi. Karsch; ein Schicksal, von welchem die Nachwelt sehr viel lernen könnte. Karsch sowohl wie sein Direktor waren in ihrer Art sehr gewissenhafte Beamte; aber der letztere war ein ausgesprochener „Pedant“, zu dem das Karsch'sche „Temperament“ so gar nicht paßte, was zur Folge hatte, daß der Direktor seinen Kustos nie hat verstehen können! Mit ungeheurem Fleiß und erstaunlicher Ausdauer stürzte sich der junge Karsch auf die gesamten Arthropoden des Museums; aber immer, wenn er sich in eine Gruppe eben einge- arbeitet hatte, wurde ihm von seinem Direktor wieder eine andere übertragen, und zwar fast immer eine solche, die der Ordnung besonders bedurfte. So wurde er fast durch alle Arthro- poden-Gruppen hindurchgejagt: Dipteren, Hymenopteren, Coleopteren, Arachniden, Acari- den, Myriapoden, Scorpione, Orthopteren, Lepidopteren, Neuropteren (!), Odonaten, Homo- pteren und Heteropteren. Immer wieder arbeitete er sich unverdrossen ein, bis er schließ- lich — aufbäumte und die Feder hinschmiß. Wenn diese beiden Persönlichkeiten einander verstanden hätten, was für eine Rolle hätte Karsch am Berliner Museum spielen können und welchen Gewinn hätte das letztere davon gehabt: Er wäre der gegebene „Abteilungs- leiter“ gewesen! [Under K. Möbius, something like a tragedy unfolded, befalling one of the museum's most capable curators, Ferdi. Karsch; a fate from which posterity could learn a great deal. Karsch, as well as his director, were in their own way very conscientious of- ficials; but the latter was a pronounced "pedant," with whom Karsch's "temperament" was completely incompatible, which resulted in the director never being able to understand his curator! With tremendous diligence and astonishing perseverance, the young Karsch threw himself into the entire arthropod collection of the museum; but whenever he had just become familiar with one group, his director would assign him another, and almost al- ways one that was in particular need of organization. Thus, he was chased through almost all arthropod groups: Diptera, Hymenoptera, Coleoptera, arachnids, acarids, myriapods, scorpions, Orthoptera, Lepidoptera, Neuroptera, Odonata, Homoptera, and Heteroptera. Again and again, he tirelessly worked his way through them until finally—he rebelled—and threw down his pen. If these two personalities had understood each other, what role could Karsch have played at the Berlin Museum, and what benefit would the latter have gained: He would have been the natural "department head"!]. In the aforementioned report by Horn about a conversation with Karsch in 1931 several unpleasant incidents with Möbius are listed, culminating in Karsch having his salary withheld for three months in 1888.

The year 1900 brought a radical change in Karsch's publications. Firstly, at the end of the year, he ended his work as editor of the 'Entomologische Nachrichten', which were subse- quently discontinued. He also completely ended his publications on arthropods, although he remained responsible for that department at the museum (The statement by Schmidtke (2006: 28) and Grau (2009: 329) that Karsch published his last entomological work in 1903 is erroneous. The second part of the report on Kükenthal's expedition, which presents the zoological results, was published in three fascicles between 1900 and 1903. Karsch's analysis of the dragonflies is found in the first fascicle).

But Karsch remained present in odonatological nomenclature in another way until 1903. Karl Grünberg (1878-1945), who worked as an assistant at the Berlin Museum from February 1902 after he completed his studies in Marburg, credited five of the ten species he described as new in his first odonatological publication (Grünberg 1902) to Karsch, who had evidently provided him with significant support. More on this in Fliedner 2026: 4-5).

Karsch's publications on same sex love

One of Karsch's treatises this year (1900b) with the title "Päderastie und Tribadie bei den Tieren aufgrund der Literatur zusammengestellt [Paederastia and tribadia in animals, compiled from the literature]" was already dedicated to the topic that would be the focus of all his future publications: same-sex love, in order to demonstrate that it was a natural phenomenon and not a pathological aberration, with the aim of overcoming social and legal obstacles, which banned same-sex love between men in many European countries including Germany. This study was published in the journal of the 'Wissenschaftlich humanitäres Komitee [Scientific-Humanitarian Committee]" founded in 1897 by a group centered around the Berlin physician Magnus Hirschfeld (1868-1935), the first organization for the rights of lesbian, gay, bisexual and transgender people, of which Karsch was a member until 1911 (Schmidtke 2006: 31).

The reason for his complete change of subject area is unknown. Hering's obituary (1937) mentions that Karsch only had pursued entomology studies at his father's urging, and that he himself would have preferred to dedicate himself to psychology (or, from today's perspective, sociology) instead. And from Karsch's own statements in his later publications, it is clear that he had been interested in the same-sex love topic from an early age. According to these statements, he began collecting relevant material sporadically from the mid-1860s, which he then pursued from 1878 onwards with the aim of systematically dealing with this issue (Schmidtke 2006: 29). His forthcoming studies on sexual orientation with the aim of overcoming social and legal obstacles were therefore well-founded. Karsch pleaded that male and female homosexuality should be considered as "überall und allezeit vorkommende natürliche Erscheinungen, welche weder Geringschätzung noch verachtungsvolles Totschweigen, noch gesellschaftliche Ächtung, am wenigsten aber brutale Verfolgung durch ein freiheitsfeindliches Gesetz, das sie doch höchstens ins Dunkel zu verdrängen vermag, verdienen [natural phenomena occurring everywhere and at all times, which deserve neither disdain nor contemptuous silence nor social ostracism, and least of all brutal persecution by a law hostile to freedom, which can at best drive them into hiding]" (quote from Schmidtke 2006: 24).

But that does not explain why he totally abandoned the matter on which he had published before and with which he still was engaged professionally.

Grau (2009: 330) considers whether Möbius, perhaps in view of Karsch's publication (1900b) or due to the fact, that Karsch, being a Prussian civil servant, was one of the over 750 initial signatories of a petition to the Reichstag (German parliament) to abolish the criminalization of sexual intercourse between men in 1899, issued a prohibition to Karsch from continuing to publish as curator of the Zoological Museum, or whether Karsch refrained from doing so of his own volition. In the first case, for which however there is no proof, the total change in the new century would be well explained. But also, the other explanation would be sufficient, as Karsch evidently was consistent in his actions. He edited the 'Berliner entomologische Zeitschrift' until the publication of the last issue of the 1884 volume in August 1885, but resigned from the association and its board in February 1885 so as not to be obligated, according to the statutes, to continue overseeing the journal as a board member (see Karsch 1895b). So, if he had decided not to continue contributing to Möbius's reputation by his consistently well-founded entomological publications from the museum, or to gain time for the new topic by abandoning them, that would be quite conceivable.

Karsch called the same-sex-love 'Uranismus [Uranism]', a term introduced in 1864 by the publicist Karl Heinrich Ulrichs (1825-1895), with whom Karsch was in contact from the 1870s (Schmidtke 2006, note 38). This name, certainly meant appreciatively, obviously was inspired by the separation of the love gods in Plato's Symposium into an Aphrodite Urania (Heavenly Aphrodite) and an Aphrodite Pandemos (Aphrodite of the common people, vulgar A.), each with the corresponding Eros. The former Aphrodite was conceived without sexual procreation from the testicles of the sky god Uranus, which had fallen into the sea after an attack by the god Kronos, son of Uranos, with a sickle, the other one originated from a rendezvous between Zeus, son of Kronos, whom he had deposed, and ruler of the Olympian gods, and Dione, a daughter of the sea god Okeanos. According to Plato, the former presides over same-sex love between men, which arises from the love of beauty and relates to the soul, without ardent sexual desire, which was considered inferior, to which assessment the subordinate social position of women in society in Plato's time certainly contributed. Plato's positive attitude towards same-sex love, which was known to the educated in the 19th century in the western hemisphere, certainly influenced Ulrich's terminology. He had called the female supporters of same-sex love 'Urninde', the male ones 'Urnier'; this term has been replaced by 'Uranier [Uranians]' in Karsch's publications, which form was more in line with the usual Germanization of ancient terms, similar to how he had tried to replace the generic name *Oplonaeschna* given by Selys with *Hoplonaeschna* (cf. p. 23). Such an explanation would also be consistent with Karsch's rejection of the term "homosexuality", which was introduced four years after the term "Uranism", as a hybrid formation from a Greek and a Latin element (Bauer 2015: 3).

According to Schmidtke (2006: 31), in his 20th-century publications, Karsch pursued two main projects, the first being same-sex love in different cultural spheres, beginning with the treatise on 'Uranismus oder Paederastie und Tribadie bei den Naturvölkern [Uranism or Paederasty and Tribadism among Primitive Peoples]' (in Schmidtke 2001 no. 276) from 1901, which was republished in a threefold expanded version in 1911 (no. 283). This was intended to be the first of five volumes, but besides this only the second one from 1906, about Koreans, Chinese, and Japanese, was ever published. The remaining volumes — based on the then prevailing conceptions of ethnic groups — one on Semites and Hamites, and the other two on Aryan peoples, never came about, probably because Karsch's publisher had died and a replacement was not easy to be found (see Schmidtke 2006, note 30). Later publications from the material accumulated for this series were Karsch's treatise "Die Rolle der Homoerotik im Arabertum [The Role of Homoeroticism in the Arabic World]" from 1923 and a summary of several individual studies entitled "Erotischer Großstadtbilder als Kulturphänomene. Erstes Heft: Wien und Berlin [Erotic Images from Metropolises as Cultural Phenomena. First Issue: Vienna and Berlin]" from 1926. The latter was Karsch's only work that was banned by censors (Schmidtke 2006, note 59).

The second project was the description of the biographies of important representatives of same-sex love under the title 'Quellenmaterial zur Beurteilung angeblicher und wirklicher Uranier [Source Material for the Assessment of Alleged and Real Uranians]' (Schmidtke 2001, no. 277), the first of which were published in 1902.

A third project by Karsch was never realized. It had been intended to consist of two volumes concerning natural history, the first of which should have covered the sex life of animals with

special consideration of their same-sex life, which would probably have been an extension and elaboration of Karsch (1900b), the other one should have been dedicated to the origin and purposes of same-sex sexual desire, along with the history of hypotheses and theories concerning this subject (Schmidtke 2006: 30). The paper by Karsch-Haack (1905), which was titled "Beruht gleichgeschlechtliche Liebe auf Sozialität? Eine begründete Zurückweisung [Is same-sex love based on sociability? A grounded rejection]," which Bauer (2015: 1) assesses to have been emancipatory, might give an idea, what kind of discussion would have been found in it.

This is not the place to discuss (and include in the reference list) Karsch's publications from 1901 onwards in detail, since Schmidtke (2001 + 2006), Grau (2009) and Bauer (2015) provide a sufficient overview. Therefore, only a few remarks will be made on this topic.

Firstly: Karsch did not publish his treatises under a pseudonym, as most authors from the same-sex scene did, but under his own name, usually adding his mother's maiden-name to his surname from 1905 onwards (Karsch-Haack).

Secondly: The number of Karsch's publications in the years from 1901 to his retirement in 1921 is rather small compared to those before that time, but they generally were more extensive (the largest work, the above-mentioned treatise from 1911, comprises 689 pages). In the years 1901, 1902, 1905, 1911 and 1920 he published just one treatise each, in 1904, 1907-1910, 1912 and 1913, 1915-1919 he published nothing at all.

Karsch's abstention from publishing coincides with events from political life: In late 1906, a press attack against Philipp Prince of Eulenburg and his circle of friends, which included Kaiser Wilhelm, triggered a scandal that strongly turned public opinion against male homosexuality. The circle, which also included gay men, who were accused of being weak and effeminate due to their sexual orientation, was said to have influenced the Kaiser not to champion Germany's greatness with the utmost resolve and thereby jeopardizing the international role the Reich had achieved under Bismarck. This prejudice against gay men in leading positions also played a role in the First World War, which lasted from August 1914 to November 1918. The defeat of Germany triggered a revolution that replaced the German Empire by the Weimar Republic. Until 1920, Berlin was shaken by civil war-like conflicts until a democratic form of government prevailed.

Karsch's retirement from the museum in spring 1921 marked the beginning of a new phase in his publishing activities: Karsch once again took on the editorship of a magazine in an attempt to promote the acceptance of same-sex love and strengthen the unity of its followers. Together with the publicist René Stelter, he founded a magazine called 'Uranos; Blätter für ungeschmälertes Menschentum [leaflets for unimpaired humanity],' whose second year's issues are practically lost today (see Schmidtke 2006, note 36). His decision to act as an editor again may have been encouraged by the fact that from 1919 onwards (i.e. after the replacement of the German Empire by the Weimar Republic) the same-sex scene, especially in Berlin, had gained cohesion through a new weekly magazine that, unlike previous similar magazines, was not aimed exclusively at educated circles (Micheler 2008: 1-9).

The journal Uranos however, which was explicitly meant for a scientifically, literarily and artistically interested, educated middle-class audience, had to be discontinued after only two years due to a lack of subscribers. The publishers had refused to include personal ads in the magazine to finance it, as such ads had led to censorship bans for immorality in

other publications. In addition to the new periodical, the two publishers attempted to create a lodge-like organization of the followers of same-sex love, a proposal that apparently met with little response.

Here are some comments on the 166 publications comprising approximately 710 pages that Karsch made in quick succession from 1921 onwards; the last few of these appeared in 1933, the year the Nazis seized power in Germany:

- To give an idea of the scope of his publications: In his most productive years 1921 to 1926 always more than 70 pages were published (the highest numbers in 1921 (98), 1922 (86), 1923 (102), 1926 (92); in the following years there was always fewer than 40 pages except for 1928. It should be noted that his publications from the second volume of the journal *Uranos* are lost and are therefore not included here.
- All these publications are related to same-sex love and were published in numerous pertinent journals, if they were not edited as booklets (e.g. Schmidtke 2001, no. 364).
- Some of them have been printed several times over the years in various journals, for instance his history of Germany's paragraph prohibiting male-male intercourse (Schmidtke 2001, no. 390, 420, 426, 436). Whether that was made with Karsch's consent or by the editors of those papers without having asked for permission is not clear (see Micheler 2008: 30).
- Besides biographical articles, there are also articles about great literary authors such as Dante or Dostoevsky (e.g. Schmidtke 2001, no. 292 / 295, 315, 322), or reports on texts from an-



Fig. 3: Portrait of Karsch ca 1925 © Archiv MfN, ZM B I / 81 (C-508)

tiquity (no. 302, 305, 340), the Arabic (no. 306, 311, 362) or Chinese (no. 441, 446) cultural sphere, or on works of art (no. 318, 368).

- In two articles published in 1930, he critically and polemically examined the Catholic Church's attitude towards homosexuality (Schmidtke 2001, no. 430, 432), the first of which having been a pamphlet that was intended to be part of a larger treatise, which did not come about (Schmidtke 2006, note 54).

This summary reveals that his aim was not only to justify same-sex love, but also to provide insights that broaden the perspective on significant objects from the occidental and other cultural spheres.

The correspondence between Karsch and Walther Horn (Fig. 3)

Not many details of Karsch's private life are known. An important source is the contents of a folder in the legacy of Walther Horn (1871-1939) (see Marwinski 1973b: 457), who was an associate of Gustav Kraatz (cf p. 4-5) and later his successor as director of the German Entomological Institute in Berlin for life. It contains, among other things, five carbon copies of letters from Horn to Karsch from October 1919 to April 1931, a report on a detailed conversation between the two about events from Karsch's past from May 1931, which has already been referred to above, and most notably five letters from Karsch to Horn from February 1926 to January 1936. But the acquaintance between the two clearly went back earlier than indicated by these letters, for in a letter from February 1930, in which Horn speaks of his longing to be able to chat with him again, he continues: "Denken Sie noch manchmal an die Zeit, wo wir 2 beide den alten Möbius gemeinschaftlich um die Wette geärgert haben? Ich meine, die Zeit als solche [Do you still sometimes think about the time when the two of us jointly annoyed old Möbius in a competition? I mean, the time itself]."

The relationship between the two can be deduced from the salutations in the letters and the greetings. Horn's first surviving letter from October 1919 is addressed "Mein hochverehrter Herr Professor [My highly esteemed Professor]," and it ends with "Mit den allerherzlichsten Grüßen stets Ihr ... [With my warmest regards, always yours ...]." In this letter Horn thanks him for 173 reprints Karsch gave to the 'Deutsches Entomologisches Institut', of which its library lacked 155, which Karsch himself seems to have delivered at the Institute in Dahlem. But Horn also asks for a reprint in which Karsch had used pseudonym 'Canus' (L. = grey, white, mostly in reference to the hair of the head and therefore figuratively used for 'aged, old, wise') of a paper from 1886 on beekeeping in ancient India, and asks him about the pseudonym 'Paul Grüne', used by Karsch as a teenager in his papers on spiders (cf. p. 3).

Horn's next extant letter to Karsch (May 1924) is humorously addressed to 'Paul Grüne selig [the late Paul Grüne]'. Enclosed with the letter are three of Horn's publications, including an "Anklageschrift gegen die 3 Direktoren des Zoologischen Museums [Indictment against the three Directors of the Zoological Museum]" and a photograph of himself. In return, he asks him to dedicate "das Geheimnis seines Lebens in gedruckter Form für mein Institut [the secret of his life in printed form to my institute]" for its preservation in all eternity, and for a photograph of Karsch, from which it can be seen that Horn was already considering how entomological museums should be run, which then led to his 1937b publication, and that his institute should also collect the biographies and photographs of important entomologists.

Despite these playful formulations, the greeting reads: "Mit den alten Empfindungen pietätvoller Hochschätzung Ihr noch so junger ... [With the old sentiments of respectful esteem, yours still so young ...]."

No direct reply to this letter from Horn has survived, but an undated sheet of paper with the heading 'Karsch' does, containing gossip about two former colleagues from the Zoological Museum, which seems to document a meeting.

The first surviving letter from Karsch in this correspondence is from February 1926, in which Karsch announces an afternoon visit. The letter bears the greeting "Sehr geehrter Herr Doktor [= Dear Doctor]," and the signature "Mit freundlichen Grüßen weiland Paul Grüne [With kind regards, the former Paul Grüne]." So this letter seems to be a document of a friendly and trusting relationship.

The next available evidence of contact between the two is Horn's letter from February 1930, in which he chose the salutation "Lieber Kollege [Dear colleague]." In the letter, Horn asks if he may invite himself to Karsch for coffee: "Ich lebe noch immer. Seit langem leide ich an einer ausgesprochenen Sehnsucht, mal wieder mit Ihnen plaudern zu dürfen. ... Ich denke, wir würden uns mancherlei gegenseitig erzählen können, denn nichts ist interessanter als das menschliche Leben [I am still alive. For a long time now, I have suffered from an intense longing to be able to chat with you again. ... I think we could tell each other many things, because nothing is more interesting than human life]." Furthermore, he notes that he has learned from a friend that Karsch's legs are not doing as well as he would like and adds that his wife would be very glad to see Karsch with them again. The greeting is "stets Ihr ... [always yours ...]."

The letter thus reveals a clear degree of familiarity between the two, even if it seems that they do not have frequent contact.

The following is a letter from Horn dated July 1930, addressed 'Dem "alten Karsch" [To the "Old Karsch"]' and saluted again "Lieber Kollege [Dear Colleague]." In it, Horn jokingly complains about not having been invited for coffee and alludes to Karsch's latest publication, in which he criticizes the Catholic Church's stance on same-sex love. At the end of the letter, following a reference to his imminent entry into his sixtieth year of life, he greets 'mit "altem" Händedruck stets Ihr getreuer Schüler ... [with my "old" handshake, always your faithful disciple...]' and includes an invitation for coffee from his wife. From the quotation marks used by Horn we see, that 'the old Karsch' is triggered by a formulation of Karsch, which he also uses for himself in a letter from May 1933, and "old" handshake refers to this phrase and Horn's own age, while the designation as faithful disciple expresses a new degree of respect and closeness.

But with the new wording of the address, Horn seems to have gone too far, because in his next letter from April 1931, Karsch chooses the salutation "Sehr geehrter Herr Direktor [= Dear Mr. Director]," while formerly he had addressed him "Sehr geehrter Herr Doktor [= Dear Doctor]," in spite of Horn being director of the 'Deutsches Entomologisches Institut' since 1909. Horn's response in his next letter (April 1931) reads: "Lieber Kollege, Vielen herzlichen Dank für Ihre lieben Zeilen, aber um alles in der Welt, weshalb nennen Sie mich "Herr Direktor"?! Das klingt ja geradezu fürchterlich [Dear colleague, thank you very much for your kind lines, but for heaven's sake, why do you call me "Mr. Director"?! That sounds absolutely dreadful]." But despite this objection, this form of address appears in Karsch's letters from then on. That is to say, Karsch, who was very concerned with proper etiquette, felt that

Horn's chosen form of address was inappropriate and resorted to a very formal mode of expression in order to show the line that he did not wish to be crossed.

But back to Karsch's letter from April 1931. In this he states that he cannot answer to a question about an entomological paper, and in addition he remarks, that in the future he did not wish to have anything to do with entomology, if the matter does not concern (heterosexual or homosexual) eroticism.

Then he thanks Horn for asking how he is doing and describes it as follows: "Alle meine Organe sollen gut und gesund sein. Wenn ich seit drei Jahren mich mit einem Beinleiden herumquäle, so dürfte das doch wohl als Folge meines schweren Unfalls im Mai 1927 aufzufassen sein. Seit Monaten bewege ich mich nur in den Räumen meiner reichlich großen Wohnung umher, geleite höchstens mal einen späten Besuch die Treppe hinab, aber auf die Straße wage ich mich nicht. Die Schmerzen sind meist erträglich, selten geistige Arbeit behindernd und den nächtlichen Schlaf nur unterbrechend, nicht abwehrend. So kann es noch lange Zeit weitergehen! [All my organs are supposed to be healthy and sound. If I've been struggling with a leg ailment for three years, surely that can be attributed to my serious accident in May 1927. For months now, I've only moved about within the rooms of my rather large apartment, at most escorting a late-night visitor downstairs, but I don't dare venture out onto the street. The pain is mostly bearable, rarely it hinders my mental work, and only interrupts my sleep at night, not prevents it. This might continue for a long time!]."

Horn reports on Karsch's affliction a month later after a visit (in translation): "Karsch has grown old: he can only walk with difficulty due to ulcers on his lower legs, which appeared after a long period of illness following a motorcycle accident and have never disappeared since. With great effort, he can climb onto a step to fetch a book from the library." These disabilities had not improved by January 1936, as Karsch himself describes it (in translation): "As far as I'm concerned, it seems that I'm pretty much done for from the middle of my shins downwards, whereas from there to the summit I hardly notice any significant change – unless that's just self-deception."

For Karsch, intellectual activity offered a refuge during these difficulties. In April 1931, he described it thus: "An geistiger Anregung fehlt es mit nicht. So habe ich ein 2000 Jahre altes Lustspiel von Terentius, das aber doch trotz seines Alters ganz modern anmutet, aus dem Lateinischen neu übersetzt und will versuchen, es auf die Bühne zu bringen [I have no shortage of intellectual stimulation. For example, I have translated a 2000-year-old comedy by Terentius, which nevertheless seems quite modern despite its age, from Latin and I intend to try to bring it to the stage.]." He then reports that he is currently working on translating a stage-worthy Chinese drama, which highlights the danger of judicial murder, into German by means of a French translation that is approximately 100 years old. From Karsch's next letter from May 1933, which answers a letter by Horn from October 1932, is to be seen, that the Chinese author was the dramatist Guan Hanqing (c. 1241–1320) and the play was "The Injustice to Dou E a.k.a. Snow in Midsummer". Karsch reported that his offer of the play to the directors of the Volksbühne (a theater in Berlin) had been strictly rejected, because their audience would understand neither the psychology of the people involved nor the author's technique. Nevertheless, they had assessed the play as remarkable in certain respects. So, he had now submitted the drama to the Deutsches Theater

and would send a copy of his translation to the Chinese embassy in the next days. He added the following remark: "Dies, mein verehrter Herr Horn, nur als Beispiel, daß es mir nicht an allerlei Anregungen fehlt. Hauptsache ist, daß sie mich beschäftigen – der Erfolg kommt erst in zweiter Linie [This, my esteemed Mr. Horn, is merely an example to show that I am not lacking in all sorts of inspiration. The main thing is that it keeps me busy – success comes second]." The letter ends with an invitation to Horn for coffee, but please not before the current construction work on his house would have been completed.

How Horn reacted to this invitation is unknown. However, there is a final letter from Karsch to Horn, dated January 1936, which begins with the words: "Für tot habe ich Sie noch nicht gehalten, also konnten Sie auch nicht auferstehen! [I haven't considered you dead yet, so you can't rise from the dead either!]." Two things can be deduced from this: We see that Horn maintains his joking manner towards Karsch, and also that their last contact was obviously some time ago. After briefly mentioning his health, which has not deteriorated (see above p. 15), Karsch discussed the entomological collection of the museum in Münster, but emphasized that he had had no connection to the Münsterland region since 1875. He then drew Horn's attention to the journal 'Abhandlungen aus dem Westfälischen Provinzialmuseum für Naturkunde [Treatises from the Westphalian Provincial Museum of Natural History], in the 1932 volume of which three entomological articles had appeared, which he cites, but a promised continuation could not be found in the subsequent volume of 1933. Later volumes of the journal were not available to him. Finally, an invitation follows, but preferably not until the second third of the year.

This shows that Karsch still valued his connection to Horn and was willing to support his efforts to collect bibliographic entomological data for his institute, despite the statement in April 1933 that he was no longer interested in any aspect of entomology except for eroticism. The postponement of the invitation until later in the year is presumably, as already asked for in the letter from April 1930, due to the desire "damit zu warten, bis Wärme in die Wohnung eingezogen ist, damit wir auch in meiner Bibliothek kramen können [to wait until the apartment is warm enough so that we can also browse through my library]."

It is not known whether this visit ever took place. However, Horn (1937a) summarized his impressions from their long acquaintance as follows: „Wer diesen seltsamen Mann mit dem aufrechten und geraden aber starren Charakter, mit seinem unglaublichen Wissen und seinem fast nie versagenden Gedächtnis im Leben näher kennenzulernen das Glück hatte, wird ihn niemals vergessen! Selten hat außerdem ein Entomologe ein tragischeres Schicksal mit größerer Würde getragen [Anyone fortunate enough to have known this remarkable man, with his upright and straightforward yet rigid character, his incredible knowledge, and his almost invariably flawless memory, will never forget him! Rarely, moreover, has an entomologist borne a more tragic fate with such dignity]!"

Karsch's death

The correspondence between Horn and Karsch falls within the period of the Weimar Republic and its destruction by the Nazis' rise to power in 1933. It must be kept in mind that with the rule of the National Socialists in Germany, the persecution of male homosexuality was significantly intensified from 1934 onwards, and that from September 1935, mere sus-

picion was punishable – a pretext the Nazis used to discredit and imprison opponents of their regime.

Schmidtke (2006: 35 with note 56) remarked that these measures no longer affected the elderly Karsch due to his advanced age and because his writings were out of print then. Certainly, the fact that Karsch had been barely able to leave his apartment since his motorcycle accident in May 1927 also contributed to his being removed from public view. Nevertheless, Grau (2008: 333) notes that Karsch's housekeeper was very worried that he might lose his pension or be deported to a concentration camp because of his statements against the Nazis.

The following entry regarding his death can be found in the death register (abridged and translated, cf. Fig. 4): "Before the undersigned registrar appeared today... the domestic servant Maria Steffens, ... and announced that the zoologist, Doctor of Natural Sciences, Professor Ferdinand Karsch, 83 years old, ... born in Münster, single, had died at Berlin-Charlottenburg, Knesebeckstr(asse) 92, on the nineteenth of December, of the year 1936,

at 11:30 a.m.

The informant stated that she was aware of the death from her own knowledge."

That means: the information, that Karsch died on 20. December 1936 from Hering (1937) and elsewhere is not in accordance with this.

According to Schmidtke (2006: 26+note 6), Karsch's entire estate appears to be lost. Just a few days after his death, his library and collection of documents relating to the lives and estates of prominent same-sex figures had already disappeared from his apartment, and a later employee of the Natural His-

C.

Nr. 793

Berlin-Charlottenburg, am 21. Dezember 1936.

Vor dem unterzeichneten Standesbeamten erschien heute, der Persönlichkeit nach Marie Steffens

im Hause Knesebeckstr. 92

wohnhaft in Berlin-Charlottenburg, Knesebeckstr. 92

und zeigte an, daß der Zoologe, Doktor der Naturwissenschaften, Professor Ferdinand Karsch

83 Jahre alt,

wohnhaft in Berlin-Charlottenburg, Knesebeckstr. 92

geboren zu Münster, Westf.

zu Berlin-Charlottenburg, Knesebeckstr. 92

am 19. Dezember

des Jahres tausend neunhundert dreißig

vor mittags um 11:30 Uhr

verstorben sei. Die Angehörige erklärte, daß sie von dem Verstorbenen aus eigener Wissenschaft unterrichtet sei.

Vorgelesen, genehmigt und unterzeichnet

Maria Steffens

Der Standesbeamte.

In Vertretung [Signature]

Fig. 4: The entry for Karsch in the Berlin-Charlottenburg death register in December 1936. © Landesarchiv Berlin (Sign. P Rep. 551).

tory Museum stated in 1988 that he had purchased books belonging to Karsch from a Berlin antiquarian bookseller as early as 1936.

But then there is Karsch's other legacy: the many scientific names in numerous arthropod orders that he published between 1878 and 1900. A small glimpse into this diversity can be found in the English Wikipedia under https://en.wikipedia.org/wiki/Category:Taxa_named_by_Ferdinand_Karsch, although only a fraction of the respective taxa are listed there.

The appreciation of his contributions to taxonomy of arachnids and insects is demonstrated by the fact that at least 30 valid taxa and 9 synonyms in various orders have been dedicated to him. In odonatology, of the 6 taxa dedicated to him, unfortunately 5 turned out to be synonymous or homonymous.

The first dedication in Odonata was made by Selys (1896: 80) naming *Calophlebia karschi* in acknowledgement of Karsch's contribution to the systematics of Libellulinae by his treatise on the genera of dragonflies with discoidal triangle of the upper wings in a lozenge shape (Karsch 1889d), which was one of his first publications on Odonata.

The next dedication was made by Krüger (1898: 83), whose *Rhinocypha karschi* however turned out to be a synonym of *Sundacypha petiolata* (Selys, 1859). Krüger did not give a reason for his dedication, but certainly Karsch's paper on Sumatran Odonata (1891d), which he mentions on page 66, had been very valuable for his publication. Before that, in 1897 Karsch had been in the jury that had awarded a prize to Krüger for his treatise on insect migration between North America and central Europe (see Fliedner 2021b: 8).

Almost at the same time, Ris (1898: 326) dedicated a new *Xiphiagrion* species to him. However, the same species had already been described as *X. cyanomelas* by Selys (1876a: 321). Ris did not give a reason for his choice of name, but it was published in the *Entomologische Nachrichten* edited by Karsch.

In the same year Förster (1898: 282) dedicated the species *Agrionoptera karschi* to him, whose work on the species and genera of libellulids (Karsch 1890b) had been of great use for Förster's publication. He had not seen however, that he had just created another one of the many synonyms of the variable taxon *Agrionoptera insignis* (Rambur, 1842).

The next taxon intended to honor Karsch was the genus *Karschia* Förster (1900: 91). By this name Förster wanted to highlight Karsch's merits in the systematics of the Aeschnids. But in vain, as that name was preoccupied by a genus of spiders established by Alfred Walter in 1889. Fortunately, this name for the spider genus has endured.

The last attempt to honor Karsch by the eponymy of an odonate taxon was made by Schouteden (1934: 225), who established a new genus *Karschiogomphus* with the explanation that Karsch had been the first to draw attention to the importance of the subbasal veins in the wing of the gomphids for classification in general. However, the single species, *Karschiogomphus ghesquieri*, on which Schouteden had based his new genus, has turned out to be a synonym of *Neurogomphus martinus* a species named by Lacroix (1921: 48) in honor of the eminent French odonatologist René Martin (1846-1825). The genus name *Neurogomphus* had been introduced by Karsch (1890d). So, the eponymous genus name honoring Karsch became a synonym of the genus named by the eponym himself.

This shows that Karsch's contributions to the classification and systematics of odonates were highly valued by contemporary experts.

Now that we have gained an overview of the scientist's life and work, the interpretation of the scientific names he gave to dragonflies will follow.

Karsch-Genera

17/34 = (50.0 %) synonyms or homonyms

Allorrhizucha 1890b: 390

= ***Neodythemis*** Karsch, 1889d:252

Gr. ἄλλος (allos) = other, another + ῥίζα (rhiza) = root; that from which anything springs as from a root + –ουχος (–uchos) = having, holding

This name was chosen in reference to the origin of the sector trianguli superior (p. 390): "Eine *Neodythemis* und *Micromacromia* äusserst ähnliche Gattung, von *Neodythemis* durch den Ursprung des sector trianguli superior des Vorderflügels im Hinterwinkel der cellula cardinalis, von *Micromacromia* durch den Ursprung des sector trianguli superior des Hinterflügels an der Aussenseite der cellula cardinalis, von beiden durch die äusserst geringe Zahl der Marginalzellen im Diskoidalraums der Vorderflügel verschieden [A genus extremely similar to *Neodythemis* and *Micromacromia*, distinguished from *Neodythemis* by the origin of the sector trianguli superior of the forewing in the posterior angle of the cellula cardinalis, from *Micromacromia* by the origin of the sector trianguli superior of the hindwing on the outer side of the cellula cardinalis, and from both by the extremely small number of marginal cells in the discoidal space of the forewings]." Karsch did not know that he had created a junior synonym of his prior genus *Neodythemis*, which he had established the year before (for which see p. 27).

Apatelia (H) 1893a: 25 (= *Lokia* Ris, 1919: 1071) = ***Aethiothemis*** Martin, 1908a: 663

Gr. ἀπατήλιος –ια –ιον (apatēlios) = guileful, wily, deceptive

Karsch (1893a:26) saw that his new species *A. incongruens* (see p. 49) had a striking resemblance to *Orthetrum chrysostigma*, whereas only one of the major generic characters, the position of the arculus, agreed to those of *Orthetrum*. So he chose the genus name *Apatelia*, which however was preoccupied by the trichopteran genus published by Wallengren (1886: 78) shortly before. On suggestion of R. A. Muttkowski, Ris (1919: 1071) replaced the Karschian name by *Lokia*, perhaps as a reference to Loki, the deceitful god in Norse mythology. But later *Lokia* turned out to be a junior synonym of *Aethiothemis* Martin, 1908 (see Dijkstra & Clausnitzer 2014: 157).

To understand the name *Aethiothemis* we must look at the second element of the name: –*themis* [Gr. θέμις = law as established by custom / the goddess of order] was never a genus name of its own right, whereas it is now found in more than sixty compound names of dragonflies. The element had been introduced by Hagen in 1861, when he required names for new libellulid genera (see Fliedner & Endersby 2019: 116) and he and Brauer from 1867 onwards had continued to create names for other libellulid genera with this element, so that it became a stem for libellulid dragonflies. In 1870 Selys established the genus *Synthemis* (Gr. συν– [syn–] = together), probably meant as "Libellulid genus alongside other ones" within the subgenus *Corduliinae* of the *Libellulidae*. As presently *Corduliidae* and *Synthemistidae* rank as families of their own right, the classification from 1870 is no longer valid and the element –*themis* is found in ca 70 taxa from all these three families.

The first element of the name is a reference to Greek mythology: Phaeton, was a son of Helios, the sun-god, and an Oceanid, a lesser deity. As he wanted to prove his divine descentance he badgered his father to allow him for one day to drive the sun chariot. His father gave in, but Phaeton was not strong enough to steer the chariot correctly, so that he came too near to earth and scorched the whole southern region and the people living there as well, who received the name Αἰθιοπες (Aithiopes), meaning properly 'those with a burnt face', to describe their dark skin color. The East African state Ethiopia was named from this myth, but dark skin colour is a common characteristic of the indigenous people of Subsaharan Africa. According to Greek tradition the disaster caused by Phaeton's inaptness was ended by Zeus, the supreme god, who struck the unlucky driver with a thunderbolt. Martin 1908: 663 informs us that the name *Aethiothemis*, which is to say 'libellulid dragonfly from Subsaharan Africa', was suggested by Ris (see Fliedner 2021a: 97).

Archiclops 1891c: 78

= *Hadrothemis* Karsch, 1891c: 75

Gr. ἀρχικλωψ (archiklōps) = robber-chief

Karsch did not give any explanation for his choice of name; the name reminds me of *Lestes* Leach (see p. 74) in which a similar 'profession' is chosen as a generic name without any explanation. He did not see that this new genus was the same as his genus *Hadrothemis* (see p. 22) described immediately before in the same paper.



Fig. 5: *Atoconeura biordinata* ♂ Zambia, 2010 © J. Kipping. The unwieldy venation and the small number of antenodal cross veins, may have led to the name.

***Atoconeura* 1899b: 371 (Fig. 5)**

Gr. ἄτοκος (atokos) = having never yet brought forth, barren /not bearing interest / not paying interest; for *-neura* see below.

Karsch based his new genus on a single immature female the taxonomic position of which he was unable to classify correctly: "Die Stellung dieser Libelle im System ist mir zur Zeit noch unklar [The position of this dragonfly in the system is not yet recognized by me]." Among the reasons for his difficulties he mentioned "die sperrige Aderung und die geringe Zahl von Antenodalqueradern [the unwieldy venation and the small number of antenodal cross veins]." The name might be interpreted as 'with a venation inconclusive for classification' (for the genus *Atoconeura* see Dijkstra 2006).

Rambur (1842: 127) introduced the element *-neura* (veined, latinized feminine form of a Greek adjectival suffix derived from νεῦρον (neuron) = sinew, tendon, which in entomology is used for wing vein) into the odonatological nomenclature for a genus distinguished from others by a special feature of wing venation, when he named a libellulid genus *Polyneura* (= with many veins). But as this name was preoccupied by a genus of Cicadidae from the Himalaya, Brauer replaced it with *Neurothemis*. But it should be kept in mind, that in many Romanic languages, e.g. French, Italian or Portuguese, words derived from Gr. *neuron* are spelled with a -v- instead of a -u-, for instance French névropathie (engl. neuropathy). So naturally Rambur spelled his genus *Polynevra*, and Selys followed him in this respect also for other taxonomic names with that element, e.g. his 'Legion Protonevra'. Selys stuck to the orthography *nevr-* until 1889; in 1891 he chose *neur-* instead for the first (and as far as I see the last) time.

***Compsothemis* 1889e: 276**

= ***Rhyothemis* Hagen, 1867a: 232**

Gr. κομψός (kompsos) = nice, refined, gentlemanly; for *-themis* see entry *Apatelia* p. 19
Karsch did not explain his choice of name for a genus that he based on a single female from Madagascar. The name probably refers to the prettiness of his specimen; for his species name *regalis* (for which see p. 63) evoking an impression of resplendency. In one of his next publications (1890b: 352) Karsch revoked the new genus because he recognized that it was a junior synonym of *Rhyothemis* Hagen. The generic name by Hagen probably was inspired by geology: in 1861 F. von Richthofen described a magmatic rock interspersed with many other minerals under the name Rhyolith (engl. rhyolite) [from Gr. ρυῖναι (rhyēnai) = having flowed + λίθος (lithos) = stone], which shows many differently coloured irregular patterns (Lüschen 1968: 303). This is also true for the patterns which members of this libellulid genus display on their wings.

***Corduliops* 1890b: 374**

= ***Chalcostephia* Kirby, 1889a: 258, 293**

Gr. -οψ (-ops) = looking like + Genus name *Cordulia*

The name refers to a rear extension of the eye which is found in some corduliids [p. 375]: "Eine durch körnige Erweiterung der Augen am Schläfenrande bei lang gestielten Sektoren des Arkulus ausgezeichnete Gattung [A genus characterized by granular dilation of the eyes at the temporal margin with long-stalked sectors of the arculus]." Kirby's name *Chalcostephia* [Gr. χαλκο- (chalko-) = brazen + στέφος (stephos) = crown, wreath, garland + feminine form of the adjectival suffix -ιος -ια -ιον] refers to a feature

of the male of the type species *C. flavifrons* p. 337: "Face yellow, upper part of the clypeus coppery green, shading into blue on the summit and on the frontal tubercle."

***Dasythemis* 1889d: 251**

Gr. δασύς (dasys) = thick with, dense; for *-themis* ≈ libellulid dragonfly see *Apatelia* p. 19

The name is a reference to the very dense wing venation, by which the taxon differs from other genera with quadrangular cellula cardinalis [e.g. *Nannodiplax* Brauer (= dwarfish *Diplax* {a junior synonym of *Sympetrum* Newman, which was in common use at least until 1880})].

***Dicranopyga* 1890a: 282**

= *Aethriamanta* Kirby, 1889a: 262

Gr. δι- (di-) = twice, doubly + κράνος [kranos] = rod of cherry-wood + Latinized feminine form of -πυγος (-pygos) = -buttocked

Karsch described this genus based on three ♀ ♀, which he characterized thus [p. 283]: "Hinterleib ziemlich dick, gleichbreit, an der Basis nicht geschwollen, erheblich kürzer als der Hinterflügel, der zweite und dritte Ring mit je einer Querkante; Scheidenklappe des ♀ gross, mistgabelförmig, in zwei lange Griffel auslaufend, welche ziemlich die Hinterleibspitze erreichen (*Dicranopyga*) [Abdomen fairly thick, equally wide, not swollen at the base, considerably shorter than the hindwing, the second and third rings each with a transverse edge; vaginal valve of the male is large, pitchfork-shaped, and terminates in two long styles that almost reach the tip of the abdomen (*Dicranopyga*)]. He added: "Die Gattung steht sehr nahe der indischen Gattung *Aethriamanta* Kirby, deren ♀ noch unbeschrieben ist [The genus is very closely related to the Indian genus *Aethriamanta* Kirby, whose female is still undescribed]." But his specimens actually were undescribed ♀ ♀ of that genus, the name of which is combined from L. *aethra* = bright sky (borrowed from Greek) and *amant* = stem of the participle *amans* = loving and the philologically inappropriate feminine ending *-a*, to show the gender unmistakably which is not seen in the participle form. But Kirby's description of the genus is purely morphological and morphological does not allow any conclusion about the interpretation of the name which probably just means: "Loving bright sky."

***Hadrothemis* 1891c: 75**

Gr. ἄδρός [hadros] = thick, stout, bulky; for *-themis* ≈ libellulid dragonfly see *Apatelia* p. 19

The genus is characterized by Karsch as: "Kurz, plump und dick [short, plump, thick]." This characteristic, however, applies only to the type species, *H. camarensis* (Kirby, 1889); the other species of the genus described by Karsch were assigned to the genus *Hadrothemis* only later by Ris (1910a: 166–168), based on different criteria: Ris, for instance, in his key, distinguishes *H. infesta* from the type species as a "schlank gebaute Art [slenderly built species]."

***Helothemis* 1890b: 377**

= *Trithemis* Brauer, 1868a,b,d: 176, 366, 735

Gr. ἥλος (hēlos) = nail-head, stud; for *-themis* ≈ libellulid dragonfly see *Apatelia* p. 19

This genus name probably refers to the extension of the male's second abdominal segment: "zweiter Ring beim ♂ unten hinten in einen ziemlich langen nach unten gerichteten Fortsatz ausgezogen [second ring of the ♂ below extended into a rather long downward-directed process]."

The name *Trithemis* [Gr. Gr. τρι- (tri-) (in compounds) = three] is a reference to the characteristic shape of the prothorax: "Hinterrand des Prothorax dreilappig, der Mittellappen klein, ganz [Rear margin of the prothorax three-lobed, the median lobe being small, entire]."

Hoplonaeschna (JOS) 1891f: 283

= *Oplonaeschna* Selys, 1883: 735

Gr. Gr. ὀπλῶν [hoplōn = of the armour (genitive of ὄπλα); for *-aeschna* see below

By spelling the name *Hoplonaeschna* Karsch did not want to introduce a new genus, but he tried to correct the transscription from Greek, which Selys had not done correctly omitting the "h" due to the phonetic use in French, where that letter normally is not spoken. Cowley's suggestion (1934a: 242) to adopt Karsch's spelling has not been followed.

Selys had chosen the generic name in reference to a single species: *Aeschna armata* Hagen (= armed *Aeshna*), the name of which points to this feature of the male (1861: 124): "the tenth segment, in the middle, above, with a long, compressed spine, bent backwards".

The genus *Aeshna* had been established by Fabricius (1775: 424) for the Anisoptera with a long abdomen, which criterion however he did not make known before the second edition of his publication in 1793 (p. 383). He never gave an explanation for the etymology of this name. But the name *Aeschna* (with a c before the h) is found in the entomological work of the English scientist T. Moufet(ius) (1634: 69), to denote Ephemeroptera and Plecoptera, which name probably was misspelled from *Aeschra* [Gr. αἰσχρά [aischrá] = the ugly one]. This name was not adopted by Linnaeus; so Fabricius felt free to use it for his odonate genus, but he kept the spelling without the c. In the 19th century, however, the name generally was used in the emended form with the c and therefore this orthography is maintained in all the compound names introduced since then. Finally the problem of the correct orthography of the name was brought forward to the ICZN, which in July 1911 rendered opinion 34, that the name of the genus *Aeshna* itself henceforth should be spelled in the Fabrician way without the c (for more see Fliedner 2024).

Hypothemis 1889d: 261 (Fig. 6)

Gr. ὑπό (hypo) = under, beneath; in compounds: somewhat, a little; for *-themis* = libellulid dragonfly see *Apatelia* p. 19

The only explanation Karsch gave for his choice for this name is: "Den Namen *Hypothemis* hat zwar schon Hagen (in Ent. Zeitung Stettin, 28. Jahrg., 1867, p. 91) für eine Libelle mit vierseitiger cellula cardinalis des indo- australischen Faungebietes angewendet; da aber die Gattung nicht charakterisirt und keine Art derselben beschrieben wurde, so bleibt der Name frei [Hagen (in Entomologische Zeitung Stettin, 28th year, 1867, p. 91) already used the name *Hypothemis* for a dragonfly with a quadrilateral cardinal cell from the Indo-Australian faunal region; however, since the genus has not been characterized and no species has been described, the name remains available]."

The text by Hagen, to which he refers, is: "Der Gattung *Nannophya* steht eine neue mit noch unregelmäßigerem Geäder nahe, *Hypothemis* Hag., mit der einzigen Art *H. irregularis* Hag. aus Celebes und Halmahera [Closely related to the genus *Nannophya* is a new one with even more irregular venation, *Hypothemis* Hag., with the only species *H. irregularis* Hagen from Celebes and Halmahera].". Neither the genus nor the species are described by Hagen, but he emphasizes that the wing venation is very irregular,

which he might have understood as 'not up to standard'. But that is a mere guess.

The Greek prefix Hypo– in the generic name suggests either a feature that is found somewhere below a point of reference, or a characteristic that is less pronounced than expected. Karsch however failed to provide any such characteristic either in the description of the genus, or of its type species *H. irregularis*, which, due to its differing type locality, cannot be the species mentioned by Hagen. So the name remains enigmatic, if not referring to the small size of the type species (total length 29.5 mm).



Fig. 6: *Hypothemis hageni* ♂ near Rakiraki, Viti Levu, November 2010 © Milen Marinov. The genus and species names may have been a sign of Karsch's admiration of H. A. Hagen.

Idomacromia 1896b: 19

Gr. εἶδος [eidos] = that which is seen: form, shape + genus name *Macromia* (see below)

The name might be understood as 'having the appearance of a *Macromia*', as to be seen from the following paragraph (p. 20): "Bestimmt man die Gattung nach de Selys, so kommt man auf *Macromia* Ramb.; mit dieser Gattung in natura verglichen verbleiben jedoch der vorliegenden nur wenig gemeinsame Merkmale [If one determines the genus according to de Selys, one arrives at *Macromia* Ramb.; compared with this genus in nature, however, the present specimen has only a few common characteristics]."

Rambur's name *Macromia* [Gr. μακρός [makros]= long, extensive + feminine form of –ώμιος [-ōmios] = concerning the shoulder] refers to the humeral part of the wings: "Ailes ayant la partie humérale du bord costal au moins deux fois aussi longue que la partie cubitale jusqu'au pterostigma [Wings with the humeral part of the costal edge at least twice as long as the cubital as far as the pterostigma]." (For the misinterpretation of the name by Williamson (1899: 231, 307) see Endersby & Fliedner 2015: 174-175).

Jagoria 1889c: 238

= *Oligoaeschna* Selys, 1889: 470

This is an eponym explained by Karsch thus (p. 237): "Diese kleine Gruppe der Aeschniden {mit ungegabelten Subnodalsektor} findet aber auch im indo-australischen Faungebiete ihre Vertreter, indem zwei Stücke, ein männliches und ein weibliches, von Herrn Dr. Jagor auf den Philippinen und Singapore erbeutet, dem alten Bestande der Odonatensammlung des Königlichen Museums für Naturkunde angehören [This small group of Aeschnids {with unforked subnodal sector} also finds its representatives in the Indo-Australian faunal area, as two specimens, a male and a female, captured by Dr. Jagor in the Philippines and Singapore, belong to the old holdings of the Odonata collection of the Royal Museum of Natural History]."

Andreas Fedor Jagor (1816-1900) was a German ethnographer and explorer, who evidently also collected some natural history items. The specimens mentioned by Karsch were collected on a journey to the Philippines, India, South-East Asia and the South Seas from 1859 to 1861. For more about the eponym see Beolens 2018: 199).

The name *Oligoaeschna* [Gr. ὀλίγος (oligos) = little, small / few; for *-aeschna* see *Hoplonaeschna* p. 23] was chosen by Selys in reference to the venation of the median space: "Ce groupe que je nomme *Oligoæschna*, me parait voisin des *Austroæschna* Selys ... Il s'en distingue par le secteur sous-nodal *non bifurqué* et l'espace médian n'étant traversé par aucune autre nervule que la normale [This group that I call *Oligoæschna*, seems to me to be close to the *Austroæschna* Selys... It is distinguished by the non-bifurcated subnodal sector and the median space not being crossed by any other vein than the normal one]."

Malamarpitis 1890b: 380

= *Dasythemis* Karsch 1889d: 251

Gr. μάλη [malê] = arm-pit + μάρπτis [marptis] = seizer, ravisher [μάρπτω (marpto) = take hold of, get hold of; in Greek-German dictionaries also a meaning 'erreichen' (= to reach) is given]

The name probably was chosen by Karsch due to this feature: "der Nodus liegt etwas näher der Flügelwurzel als dem Aussenrande des Pterostigma [the nodus is located somewhat closer to the wing root than to the outer edge of the pterostigma]." He failed to note that his new taxon was synonymous with his genus *Dasythemis* (see p. 22). The synonymy was stated by Ris 1909b: 301.

Mesocnemis 1891c: 66 (Fig. 7a-c)

Gr. μέσος [mesos] = middle, in the middle + *-cnemis* in meaning of platycnemidid damselfly

The following feature is at the base of the name of this genus (p. 67): "Der Arculus liegt nicht in der Verlängerung der 2. Antenodalquerader, sondern constant zwischen der 1. und 2. Antenodalquerader und der 2. nur wenig mehr genähert als der 1. [The arculus is not located in the extension of the 2nd antenodal cross vein, but constantly between the 1st and 2nd antenodal cross veins and to the 2nd one only slightly closer than to the 1st]." Additionally, Karsch explains: "Statur ähnlich der *Metacnemis valida* Selys, plump und kurz im Verhältniss zur Dicke bei beiden Geschlechtern.

Ihren systematischen Platz findet diese von allen Agrioniden des Königlichen Museums für Naturkunde zu Berlin durch die Lage des Arculus im Niveau zwischen den beiden

Antenodalquadratern abweichende Gattung neben *Metacnemis* Selys [Stature similar to *Metacnemis valida* Selys, plump and short in proportion to its thickness in both sexes. This genus, which differs from all other agrionids in the Royal Museum of Natural History in Berlin due to the position of the arculus at the level between the two antenodal cross veins, finds its systematic place alongside *Metacnemis* Selys]."

Fig. 7a-c: *Mesocnemis singularis*, syntypus, photo Mélanie Turiault, © MfN Berlin.

In dorsal view the position of the arculus, that led to the name, is clearly visible.



Micromacromia 1890b: 388

Gr. μικρός –ᾶ –όν [mikros] = small; for *Macromia* see *Idomacromia* p. 24

Karsch based this libellulid genus on the species *M. camerunica* [see p. 35], which is relatively small. But in his description of the genus he does not mention *Macromia* at all. So the name is enigmatic. Perhaps like in Hagen's genus *Macrothemis* the tooth of the claws led to the name, as one of the characteristics given Selys (1843: 108) was: "Les principaux caractères qui distinguent les Macromies des Cordulies sont d'avoir les ongles des tarsi entièrement bifides" [The main characteristics that distinguish the Macromies from Cordulines are having the tarsal claws fully bifid]. But this is a mere guess.

Monocoloptera 1900a: 228

= **Tyriobapta** Kirby, 1889a: 262, 294

Gr. μόνος [monos] = alone, solitary + κῶλον [kōlon] = limb, member, part of something + –πτερος [–pteros] = winged

The name has nothing to do with the modern eyewear, the name of which was formed in the 19th century from Gr. *monos* and L. *oculus* = Auge. It refers to the following feature of wing venation, mentioned in a key on p. 224: "Im Vorderflügel eine Strecke nur eine Reihe Diskoidalzellen [In the forewing, there is only one row of discoidal cells for a distance]." The synonymy with Kirby's genus was stated by Ris 1910b: 355.

The name chosen by Kirby is formed of Gr. Τύριος (Tyrios) = from Tyros (Phoenician town known for its export of purple) and the latinized feminine form of βαπτός (baptos) = dipped, dyed. It refers to the hind wings of mature males of the type species *T. torrida* (Kirby 1889: 338): "hind wings with a large purplish-brown blotch at the base with green and purple reflexions, broadest at the anal angle, where it covers rather more than a forth of the wing."

Neodythemis Karsch, 1889d:252

Gr. νέος –α –ον [neos] = new, fresh + δύο [dyo] = two + –*themis* see *Apatelia* p. 19

This taxon was described in a group of genera for which Karsch states as a characteristic: "Hinterleib des Männchens schlank, dünn, am hinteren Ende etwas erweitert, ähnlich *Dythemis* [abdomen of the male slim, lean, at the distal end somewhat dilated, similar to *Dythemis*]." The genus *Dythemis* probably was named by Hagen (1861: 162) due to the bituberculate vulvar lamina of the females.

Neothemis 1889d: 256

= **Nephepeltia** Kirby, 1889a: 310

Gr. νέος [neos] = new, fresh + –*themis* = libellulid dragonfly

As usual Karsch does not give an explanation of the name, which probably is meant as "new kind of libellulid dragonfly."

But his taxon turned out to be a junior synonym of the genus *Nephepeltia*, which had been established by Kirby earlier in the same year. Its name is formed from the elements Gr. νέφος [nephos] = cloud, mass of clouds, πέλτη [peltē] = small light shield, but also: shaft, pole and the feminine form of the suffix –ιος (–ios) = pertaining to. As usual with Kirby there is no explanation of the name, but the element *neph*– in scientific names often describes a dark and cloudy pattern. That might apply to the abdomen of the sole species of the genus when established, *N. phryne* (Perty, 1834: 125), which

is described as slender and cylindric (“tenue, cylindricum”) and dark fuscous with several chestnut brown lateral spots (“fusco-nigrum, maculis utrimque aliquot badii lateralibus”). Kirby emphasises the slenderness of the taxon's abdomen in the key (p.259) and in its description as a distinctive feature; so probably the rarer meaning of *pelte* is intended.

Neuragrion 1891h: 105

= *Heteropodagrion* Selys, 1885: cxliv

Gr. νεῦρον [neuron] = any linear feature in an organism, so sinew, tendon, vein, nerve, fibre in plants; in entomology used for wing veins; for *–agrion* ≈ non-calopterygid damselfly see below

As Karsch emphasizes the following characteristic of the venation of his single female specimen as a distinguishing feature from two other podagrionid damselflies, it is probably at the base of the name: “die drei Antecubitalqueradern im Subcostalraume der Hinterflügel [the three antecubital cross veins in the subcostal space of the hind wings].”

The name *Agrion* [Gr. ἄγριος [agrios] = living in the fields / wild] was introduced into odonatological nomenclature by Fabricius (1775: 425), when he established a genus under this name to comprise the Zygoptera. The name probably was chosen because they do not live in a domestic area. Later other genera were split from this genus, for instance by Leach (1815) the genera *Lestes* and *Calepteryx* (later emended to *Calopteryx*), the latter one “those Agrionida with coloured wings”. In the course of the 19th century, *Agrion* was widely accepted as a genus for all non-Calopterygid damselflies not attributed to other genera. From the middle of the 19th century new zygopteran taxa were established, of which *–agrion* as second element of the names to show that they did not pertain to calopterygids. But then the opinion arose that Latreille 1802 (p. 287), by naming *Agrion* (= *Calopteryx*) *virgo* as the only species of the Fabrician genus, had made it its type species. In this case *Calopteryx* Leach had to be considered a junior synonym. Kirby, following this conviction, in his ‘Synonymic Catalogue of Neuroptera Odonata or Dragonflies’ replaced the name *Agrion* in the previous sense by *Coenagrion*. After long controversies it is now common use to retain the name *Calopteryx* Leach, but to replace *Agrion* for non-Calopterygids by *Coenagrion* (see Hämäläinen & Fliedner 2022: 11-12). So now *Agrion* is only found as an element in compound names, meaning ‘coenagrionid damselfly’.

Selys (1862: 12) chose the name *Podagrion* [≈ leg-*Agrion*] for a genus of six American species with long or very long legs. Seeing later that the name was preoccupied by a genus in Hymenoptera he changed it to *Megapodagrion* [≈ longfoot-*Agrion*] (Selys 1885: cxliv). Directly after this change he described a new genus *Heteropodagrion* [Gr. ἕτερος (heteros) = one or the other of two; of another kind, different], explaining its species to be “fort analogues aux *Heteragrion* [very similar to *Heteragrion* (= different sort of *Agrion*)], a taxon he had established as one genus in his ‘légion *Podagrion*’ in 1862b. For the synonymy of *Neuragrion* and *Heteropodagrion* see Garrison & von Ellenrieder 2005.

***Neurogomphus* 1890d: 380 (Fig. 8)**

Gr. νεῦρον [neuron] = any linear feature in an organism, so sinew, tendon, vein, nerve, fibre in plants; in entomology used for wing veins + *–gomphus* for gomphid dragonfly



Fig. 8: *Neurogomphus zambeziensis* ♂ Botswana 2006 © J. Kipping. This species is one of the last described in the genus established by Karsch.

Karsch began the description of his new genus, which was based on a single female from Cameroon, with a detailed characterization of the wing venation, whereas in the preface of his paper he had stated (p. 370), that in gomphids “das Flügelgeäder im Ganzen ziemlich gleichartig bleibt und doch dabei individuell in ziemlich weiten Grenzen variiert [the wing venation is fairly uniform overall and yet varies individually within fairly wide limits].” So the name might mean: ‘Gomphid, distinguished from others by features of wing venation.’

Nympheutria 1894b: 14

= *Hadrothemis* Karsch 1891c: 75

Gr. νυμφεύτρια [nympheutria] = she who escorts the bride, bridesmaid

This genus name certainly is an example of the female theme, that means names like *virgo* (= virgin), *puella* (= girl) and others, probably inspired by vernacular names for odonates like French ‘demoiselles’ or Dutch ‘waterjuffers’. But Karsch failed to note that the species he took from the genus *Thermothemis* Kirby as a matter of fact pertained to his genus *Hadrothemis* (see above p. 22).

Oligoclada 1890b: 382

Latinized feminine form of Gr. ὀλιγόκλαδος [oligoklados] = with few branches

The small number of antenodal crossveins led to the name (p. 383): “Von allen amerikanischen Gattungen mit durchlaufender letzter Antenodalquerader im Vorderflügel (ausser *Pachydiplax* Brauer mit nur 6 Antenodalqueradern) durch die geringe Zahl von 8—9 Antenodalqueradern im Vorderflügel ausgezeichnet [distinguished from all American genera with continuous last antenodal cross vein in the forewing (except *Pachy-*

diplox Brauer with only 6 antenodal cross veins) by the small number of 8 - 9 antenodal cross veins in the forewing]."

***Olpogastra* 1895a: 202 (Fig. 9)**

Gr. ὀλπῆ [olpē] = leathern oil-flask + γαστήρ [gastēr] = paunch, belly (in entomology: abdomen)

The name refers to the shape of the abdomen of the single species, on which the genus was based (p. 201): "Hinterleib lang, ziemlich von gleicher Länge mit dem Hinterflügel, schlank, am Grunde äusserst stark blasig aufgetrieben, nach oben und unten stark gewölbt, das vierte Segment schmal, drehrund, die hinteren allmählig etwas verflacht [Abdomen long, roughly the same length as the hind wing, slender, extremely bulbous at the base, strongly arched upwards and downwards, the fourth segment narrow, circular, the rear segments gradually flattening slightly]."

***Paltothemis* 1890b: 362**

Gr. παλτόν [palton] = missile, dart, light spear + *-themis* = libellulid dragonfly

Probably the plain, unbranched hamulus is at the base of the name: "die Genitalien mit einfachem Hamulus wie bei *Macrothemis* [the genitals with a plain hamulus as in *Macrothemis*] (cf. p. 363: "einem des äußern Astes entbehrenden Hamulus [a hamulus lacking the exterior branch]."



Fig. 9: *Olpogastra lugubris* ♂ Botswana 2005 © J. Kipping.
The conspicuous dilatation of the second abdominal segment led to Karsch's choice of the name.

***Pentathemis* 1890c. 33**

Gr. πεντα- [penta-; this form exists only in compounds] = five; for *-themis* = libellulid dragonfly see *Apatelia* p. 19

The name refers to the five-sided forewing triangle. "Cellula cardinalis im Vorderflügel fünfseitig mit doppelt gebrochener Vorderseite, von einer Ader getheilt [Cellula cardinalis [triangle] in forewing five-sided with a doubly broken costal side and divided by one crossvein.]" But it is to be noticed, that the sole female specimen seen by Karsch was

an aberration; a series taken by Watson (1969) over eighty years later shows that the triangle has only three sides.

Platyplax (H) 1891e: 262

= ***Planiplax*** Muttkowski, 1910: 169

Gr. πλατύς [platys] = flat + πλάξ [plax] = anything flat and broad

The flattened frons, especially in males, led to the name: "Stirn oben beim ♀ schwächer, beim ♂ stärker abgeflacht und stark mit querkantigem Vorderrande vortretend [Frons above in females lesser, in males more flattened and strongly protruding with a prominent transversely bordered anterior margin]."

As this name was preoccupied in Hemiptera, Muttkowski replaced it with *Planiplax* substituting the first element of the name by its Latin equivalent *planus* (= flat, level).

Podogomphus 1890d: 381

= ***Notogomphus*** Selys, 1858: 379

Gr. πούς (stem ποδ-) = leg + -gomphus for gomphid dragonfly

This name was given in reference to the long hind femora: "Die Hinterschenkel ausserordentlich lang, wenigstens bis zur Mitte des 2. Abdominalsegmentes reichend [The hind femora are exceptionally long, reaching at least to the middle of the 2nd abdominal segment]." But Karsch's name is junior synonym of *Notogomphus* Selys (from Gr. νότος [notos] = south wind / south or south-west quarter), established for two genera from Abyssinia: "Les deux espèces connues constituent notre 9e groupe ... et sont de l'Abyssinie. ... Si elles étaient démembrées de Gomphus, on pourrait les nommer Notogomphus [The two known species constitute our 9th group ... and are from Abyssinia. ... If they were separated from Gomphus, they could be called Notogomphus]." So the name points to the southern provenance seen from Europe.



Fig. 10: *Porpax asperipes* ♂ Gabon 2012 © J. Kipping. The shield like shape of the middle lobe of the thorax seems to be at the base of the generic name, whereas the Greek word does not mean a shield itself, but only a part of it.

Porpax 1896b : 17 (Fig. 10)

Gr. πόρπαξ [porpax] = handle of a shield

When naming this taxon Karsch seems to have had in mind not the handle, but the shield itself, as to be seen from his description of the prothorax: "Prothoraxmittellappen sehr gross, schildförmig, vorn etwas gewölbt, am Oberrande breit gerundet, nicht eingekerbt [Prothorax middle lobe very large, shield-shaped, slightly arched at the front, broadly rounded at the upper edge, not notched]."

Potamarcha 1890b: 370

Gr. ποταμός [potamos] = river + ἀρχός [archos] = chief, leader.

This seems to be a reference to the habitat, but no corresponding information is given in Karsch's description. The name does not fit well, as the species is known to inhabit lentic waters. In addition the name shows a latinized feminine form, which is not found in antiquity. This probably is caused by the single species included in the new genus, viz. *Libellula obscura* Rambur (nec Fabricius), which is a synonym of *Libellula congener* Rambur, because it is feminine. So probably he wanted to avoid a change in gender.

Schizonyx 1890a: 281

= **Zygonyx** Hagen 1867c: 62

Gr. σχίζω [schizō] = to split, cleave + ὄνυξ [onyx] = talon, claw

Selys 1869b: 96 had described a species *luctifera* from the Seychelles which species he had classified in his genus *Zygonyx* with a question mark, as it differed in several characteristics from the taxa *ida* and *iris*, which had previously been the only ones assigned to this genus. One of these differences was that in *luctifera* the bifid claws were not of equal length but one tooth was a little shorter. So, Karsch decided to establish a new genus for that taxon, which however he confessed not to know. But Karsch's new genus did not prevail, since, for example, Martin (1896: 103) adhered to the classification in the genus *Zygonyx* (for which genus see p. 80) and Grünberg (1903: 718 n.1) stated, that *Schizonyx* as well as *Pseudomacromia* Kirby were younger synonyms of the Selysian genus.

Stenocnemis 1899a: 166

Gr. στενός [stenos] = narrow + -cnemis meaning platycnemidid damselfly

This genus was named for the narrow anterior side of the quadrilateral compared with the posterior one with the sole species placed in this genus: "*Stenocnemis* nov. spec. Von *Allocnemis* Selys ... durch die nicht bis zur Postcostalen gestielten Flügel und deren unregelmässiges Viereck, dessen Vorderseite nur $\frac{3}{4}$ der Hinterseite ausmacht, verschieden [*Stenocnemis* nov. spec. from *Allocnemis* Selys ... distinguished by wings that are not stalked up to the postcostal and their irregular quadrilateral, the anterior side of which is only $\frac{3}{4}$ of the posterior side]."

Zonothrasys 1890e: 297

= **Brachythemis** Brauer, 1868d: 736

Gr. ζώνη [zōnē] = belt, girdle + θρασύς [thrasys] = bold, daring

Karsch's name is a little enigmatic, as the Greek word thrasys nearly always describes a person; so the combination with a belt is somewhat extraordinary. The only a girdle like feature mentioned in the description is a transverse ridge on the fourth segment, by which his new libellulid genus is distinguished from others: "von *Micrathyria* Kirby und *Diplacodes*

Kirby durch das einen Querkiehl tragende vierte Abdominalsegment verschieden [differing from *Micrathyria* Kirby and *Diplacodes* Kirby by the fourth abdominal segment bearing a transverse keel]." So probably this feature has led to the name. Karsch's taxon was synonymized with Brauer's genus by Ris (1911: 581).

Brauer's name *Brachythemis* [Gr. βραχύς (brachys) = short; for *-themis* see *Apatelia* p. 19] is easily understood from the description of the genus: "Hinterleib kurz, dick, vom Grunde an allmählig dünner, spitz [Abdomen short, thick, getting thinner from the base gradually, pointed]" (Fig. 11).



Fig. 11: *Brachythemis impartita* ♂ Kenya, 2025 © J. Kipping. Karsch's genus *Zonothrasys* was synonymized with Brauer's genus *Brachythemis* by Martin (1908a: 651). Ris' assessment (1911: 583), that *Z. impartitus* most probably was a junior synonym of *B. leucosticta* (Burmeister) led to this species not being recognized as valid again but very recently (Dijkstra & Matushkina 2009).

Species group names

77/106 = (25.4 %) synonyms or homonyms

Parentheses () indicate transference from the original genus to another

abnormis, *Paragomphus* (1890d: 378)

L. *abnormis* *-is -e* = deviating from the rule / irregular

Earlier in that publication (p. 371), in which Karsch deals with the gomphids, he had criticised that the keys given by de Selys rely on the males appendages, while criteria for the species classification of females are missing. He states that a little wing vein, which he calls 'Subcostalquerader [subcostal cross vein]' is mostly present in aeshnids and gomphids, but never in corduliids or libellulids.

But he lists about twenty gomphid genera, in which that vein is missing, in these *Onychogomphus*, in which he classifies his species *abnormis*, which, however, against his rule for that genus lacks that special wing vein (p. 379 in blocked print): "In allen Flügeln eine basale Subcostalquerader [In all wings a basal subcostal cross vein]." So this irregularity led to the name. It is to be noted however, that the species pertains to a different gomphid genus, described by Förster in 1906 under the preoccupied name *Mesogomphus*, which later was substituted by *Paragomphus* Cowley, 1934b [≈ a taxon close to *Gomphus* (Gr. *pará* = beside, near)].

aequale, *Orthetrum* (1898a: 343) = ***Orthetrum angustiventre*** (Rambur, 1842: 59)

L. *aequalis* –is –e = equal, similar; of the same age/generation/duration

The name refers to the similarity to Karsch's species *O. leoninum* (p. 343): "Diese *Orthetrum*-Art sieht dem *O. leoninum* K. sehr ähnlich und könnte leicht mit diesem verwechselt werden, zumal beide Arten in der Sierra Leone zusammen vorkommen [This *Orthetrum* species looks very similar to *O. leoninum* K. and could easily be confused with it, especially since both species occur together in Sierra Leone]." But in spite of the differences noted by Karsch they are both junior synonyms of *Orthetrum angustiventre* (Rambur) [L. adjective formed from *angustus* –a –um = narrow, strait, contracted + *venter* (stem *ventr-*) = the belly, paunch], who named it because of this feature (p. 59): "abdomine lineari, gracili, triquetra [with a straight, slender, triangular abdomen]," which is even more accentuated in the Frech description (p. 60): "abdomen long, très-grêle, trigone, peu renflé à la base, noirâtre; [long, very slender abdomen, trigonal, slightly swollen at the base, blackish]."

asperipes, *Porpax* 1896b: 18 see fig. 10 p. 31

L. *asper* –era, –erum = rough, uneven; shaggy, coarse, harsh + –pes = -footed

In the description of the genus *Porpax* as one distinguishing feature to *Sympetrum* is given: "die starke Bewehrung der vier Hinterschenkel [the strong armature of the four rear legs]." In the description of the species itself the legs are not even mentioned.

biordinata, *Atoconeura* 1899b: 371 see fig. 5 p. 20

L. *bi-* (in compounds) = twice, double + *ordinatus* –a –um = set in order, arranged, adjusted, disposed (past participle)

The name given by Karsch was due to this feature: (p. 372): "im Vorderflügel ... das Discoidalfeld mit nur zwei Zellreihen [in the forewing... the discoidal field with only two rows of cells]."

braganza, *Rhyothemis* 1890b: 354

Braganza = Latin form of Bragança, name of a town in northern Portugal, from which the noble family 'House of Braganza' (see below) derived its name.

Karsch introduces his new taxon with this remark: "*Rhyothemis* Hagen gilt als eine nur der alten Welt eigene Gattung; es ist daher bemerkenswerth, dass das Königliche Museum für Naturkunde in Berlin sich im Besitze einer brasilianischen *Rhyothemis*-Art befindet, welche leider in nur einem einzigen, sehr alten, jedoch gut erhaltenen, männlichen Exemplare vorliegt [*Rhyothemis* Hagen is considered to be a genus unique to the Old World; it is therefore remarkable that the Royal Museum of Natural History

in Berlin is in possession of a Brazilian *Rhyothemis* species, which unfortunately exists in only a single, very old, but well-preserved, male specimen]. So the name was thought as a reference to the uncommon provenance of Karsch's specimen, the House of Braganza, from which the Portuguese kings came from 1640 to 1853. The House also provided emperors of Brazil from 1822 to 1889 until the overthrow of Peter II in November 1889, who went into exile in France. But there were two errors included in Karsch's nomenclature at the time of his publication. The house of Braganza was no more in authority of Brazil and the species was not from Brazil, as its label in the collection had said, but Northern Australia (see Endersby & Fliedner 2015: 123).

***bullata*, *Gynacantha* 1891f: 282**

L. *bull*a = boss, knob, stud / bubble / locket/amulet (usu. gold) hung round necks of boys
+ suffix *-atus -ata -atum* = equipped with

The species was described in two parts; it was first mentioned in a key, where nothing is said what might have led to the name. But in the detailed description in his next publication the large auricles of the males are mentioned (1891g: 307): "der zweite Ring beim ♂ jederseits mit grossem, am Aussenrande gerundetem Ohrchen [the second ring of the ♂ on each side with a large auricle rounded on the outer edge]."

***camerunense*, *Pseudagrion* (1899a: 168)**

mod. L. *Camerunensis* *-is -e* = from Cameroon

The name refers to the type locality, which is mentioned in the title of Karsch's paper "Odonaten von Johann-Albrecht-Höhe (Nord-Kamerun) [Odonates from Johann-Albrecht-Höhe (North Cameroon)]."

***camerunica*, *Micromacromia* 1890b: 389**

mod. L. *Camerunicus* *-a -um* = Cameroonian

Karsch described the provenance of his type specimens thus: "Die Beschreibung ist nach vier Exemplaren (2 ♀ ♀, 2 ♂ ♂) von Kamerun (Westafrika) gefertigt; drei derselben (2 ♂ ♂ 1 ♀) erwarb das Königliche Museum für Naturkunde in Berlin von der Firma Dr. Staudinger in Blasewitz bei Dresden [The description is based on four specimens (2 ♀ ♀, 2 ♂ ♂) from Cameroon (West Africa); three of these (2 ♂ ♂, 1 ♀) were acquired by the Royal Museum of Natural History in Berlin from the company Dr. Staudinger in Blasewitz near Dresden]."

***catharina*, *Macrothemis* 1890b: 366 = *Brechmorhoga nubecula* (Rambur, 1842: 122)**

The Karschian name is a toponym, referring to the Brazilian state Santa Catarina, where his specimens were collected at "Theresopolis, S. Catharina, Brasilien" by H. Fruhstorfer (about him see p. 42).

But his taxon had been described earlier by Rambur under the name *nubecula* (L. = little cloud) due to this feature: "Ailes larges, à réseau clair, un peu lavées de brunâtre, surtout vers l'extrémité, avec le tiers interne teint légèrement de jaunâtre [Wings broad, with clear venation, slightly washed with brownish color, especially toward the tip, with the inner third tinged lightly with yellowish color]."

***caudata*, *Gynacantha* 1891h: 121**

L. *cauda* = extreme part/tail of anything (in entomology for abdomen or for the appendages)

+ suffix *-atus -ata -atum* = equipped with

The name probably refers to the lower appendage of Karsch's single male specimen, which is described thus: "der untere Anhang sehr lang und schmal, bis zur apicalen Erweiterung der obern reichend, am Ende etwas aufgekrümmt, in zwei rundliche Spitzchen auslaufend und etwas behaart [The lower appendage is very long and narrow, reaching to the apical extension of the upper appendage, slightly curved at the end, ending in two rounded tips and slightly hairy]."

coacta, *Hadrothemis* (1891b: 60)

L *coactus* –a –um = (among others) condensed

Probably this feature has led to the name: "Plump und kräftig, besonders der Brustkasten [Plump and burly, especially the thorax]."

consueta, *Chlorocypha* (1899b: 376) (Fig. 12)

L. *consuetus* –a –um = customary, habitual, usual

The similarity to two other *Chlorocyphae* (by Karsch still classified in the genus *Libellago*) seems to have given the impression that the new species had a somewhat familiar look (p. 377): "Die Art steht der *Libellago luminosa* Karsch durch die Zeichnung des Brustkorbes und des Rückens des 2. Hinterleibssegmentes am nächsten, weicht aber von dieser Art durch den Mangel der schwarzen Seitenstriemen des Rückens des 3. Hinterleibssegmentes, dessen Zeichnung an die bei *Libellago cyanifrons* Selys erinnert, längere, nur am Grunde etwas gelb getönte Flügel und längeres Pterostigma ab [The species is closest to *Libellago luminosa* Karsch in the pattern of the thorax and the back of the 2nd abdominal segment, but differs from this species in the lack of black lateral stripes on the back of the 3rd abdominal segment, whose pattern is reminiscent of that of *Libellago cyanifrons* Selys, longer wings, only slightly tinged yellow at the base, and longer pterostigma]."



Fig. 12: *Chlorocypha consueta* ♂ Zambia 2010 © J. Kipping. The similarity to closely related species led to the name.

***cylindrata*, *Gynacantha* 1891f: 282**

L. *cylindrus* = cylinder + suffix *-atus -ata -atum* = equipped with, marked with

One important feature by which his four male and four female specimens are distinguished from *G. vesiculata* in the key is: "Hinterleib cylindrisch; dritter Ring an der Basis nicht verengt: *cylindrata* m. [abdomen cylindrical; third ring not constricted at the base: *cylindrata* m.]." This feature is also mentioned in the final description of the species (1891g: 308).

***debile*, *Limnetron* (1891f: 286)**

L. *debilis* *-is -e* = weak/feeble/frail

Karsch deals with this name before the description of the species *Epiaeschna heros*, which he thinks to be congeneric. In that species a diagnostic feature in the females is (in translation) "a triangular plate protruding on each side of the occiput, behind." Karsch declares, that this is not a generic feature, but a specific one for this reason: "ich wäre sonst gezwungen, eine zweite jener Platte ermangelnde und anscheinend neue Art aus Brasilien, deren Scheiteldreieck beim ♀ hinten jederseits schwach ausgeschnitten ist, als selbständige Gattung aufzufassen, was ich nicht für angemessen halte, da sie in allen wesentlichen Merkmalen mit *heros* übereinstimmt [I would otherwise be forced to consider a second species from Brazil, which lacks that plate and is apparently new, and whose vertex triangle in the ♀ is weakly excised on both sides behind, as an independent genus, which I do not consider appropriate, since it agrees with *heros* in all essential characteristics]." So the weakly excised occiput in the females constitutes the base of the name.

decorata, *Libellago* 1893a: 34 = ***Chlorocypha curta*** (Hagen in Selys, 1853: 58)

L. *decoratus* *-a -um* = decorated, adorned

The name given by Karsch probably refers to the yellow or yellowish red markings of head, prothorax and thorax in both sexes. As for the male abdomen, the red color is mentioned only for the first two to three segments, while the other ones are described as "einfarbig grau braun [single colored gray-brown] and the strikingly bright blue last three segments are not mentioned at all. Karsch's description of the male is based on juvenile specimens. He mentions male specimens (but no females) of *C. curta* also collected in that region, which he does not recognize as conspecific (p. 35). The species *C. curta* (L. *curtus* *-a -um* = shortened, mutilated, broken, short), was the shortest *Libellago* species described by Selys in 1853.

***defecta*, *Hadrothemis* (1891b: 61) (Fig. 13)**

L. *defectus* *-a -um* = faulty, defective / reduced in size, smaller / tired, enfeebled, worn out

Karsch describes three species in this publication, which he placed in the genus *Thermothemis* Kirby, which however are now placed in the genus *Hadrothemis* established by Karsch in his next odonatological publication (1891c: 75). As usual Karsch does not give an explanation for his choice of name, but it might be the absence of an inner triangle in the hind wings, by which this species differs from the other two, as if it were a defect: (p. 62): "Im Hinterflügel ... die cellula cardinalis ungetheilt, kein inneres Dreieck [In the hindwing ... the cellula cardinalis undivided, no inner triangle]."



Fig. 13: *Hadrothemis defecta* ♂ Gabon 2012 © J. Kipping. The missing inner triangle in the hindwings probably is at the base of the name.

delia, *Disparoneura* 1891d: 243 = ***Prodasineura verticalis*** (Selys, 1860: 453)
mod. L. *Delius* –a –um = referring to the Sumatran province Deli

The name given by Karsch has nothing to do with the epithet *Delia* of the Greek goddess Artemis, which Ris used as a name of a *Macrothemis* in 1913 (see Fliedner 2021a: 37). The reason for his choice of name is to be seen from the title of the paper in which the species is described: "Sumatranische Odonaten, gesammelt von Herrn Hofrath Dr. med. L. Martin in Bindjei (Deli), zusammengestellt von Dr. F. Karsch [Sumatran odonates, collected by Hofrath Dr. med. L. Martin in Bindjei (Deli), compiled by Dr. F. Karsch]."

In Selys' name the Latin adjective *verticalis* is not used in the prevailing meaning 'perpendicular', but as 'concerning the vertex' as to be seen from this clause in the description: "Une bande rouge au vertex, traversant l'ocelle antérieur [A red band at the vertex, crossing the fore ocellus]."

dichroa, *Trithemis* 1893a: 25

Latinized feminine form of Gr. δίχρους [[dichrous] = two-coloured

Probably the differing coloration of male and female is at the basis for this name. Karsch says in his description of the male: "♂: Körper und Beine ganz schwarz, stellenweise glänzend, ohne alle Zeichnung [♂: Body and legs completely black, shiny in places, without any markings]." For the female he describes the head as yellow, while the yellow thorax and abdomen bear black bands or stripes. But living ♂ specimens other than stated by the author are not totally black, but have lighter markings.

***dirupta*, *Agyrtacantha* (1889c: 236)**

L. *diruptus* –a –um past participle of *dirumpo* = to break apart

Karsch's description of his single female type specimen from the Key islands near Timor provides no information about any damage or an analogous morphological character, which he classified in the genus *Triacanthagyna*, which otherwise was only known from the Americas. So the name is probably intended to indicate the great distance from the previously known distribution area of the Selysian genus (see Endersby & Fliedner 2015: 139).

***divisa*, *Crocothemis* 1898a: 342 (see fig 29 p.72)**

L. *divisus* –a –um = divided

The name refers to a feature of the triangle in the hind wing: "*Crocothemis divisa* n. sp. ♂, ♀. — Fliegt mit *Crocothemis erythraea* (Brullé), ist aber von ihr durch folgende Merkmale verschieden: 1) das symmetrisch geteilte Dreieck im Hinterflügel ... [*Crocothemis divisa* n. sp. ♂, ♀. — Flies with *Crocothemis erythraea* (Brullé), but differs from it by the following characteristics: 1) the symmetrically divided triangle in the hindwing ...]."

***dolabrata*, *Aeschna* 1899b: 374 = *Zosteraeschna minuscula* (McLachlan, 1896: 421)**

L. *dolabra* = pick-axe + suffix –atus –ata –atum = equipped with, marked with

In Karsch's description of the taxon there neither is an explanation of the name nor is a feature described for his single male specimen, which might help us to understand it. But it might pertain to the shape of the inferior male appendage. Later it was found that Karsch's taxon was a junior synonym of *Zosteraeschna minuscula* (L. *minusculus* –a –um = rather small), which was the smallest *Aeshna* species of the three described by McLachlan in his paper. He described the male inferior appendage thus: "Inferior appendage ... elongately triangular, the apex notched."

***emarginatum*, *Pseudagrion* 1893a: 39**

L. *emarginatus* –a –um = emarginated (past participle of *emargino* = to deprive of its edge)

The epithet refers to a marking of the thorax, by which the new taxon is distinguished from *P. melanicterum* Selys: "Von *Pseudagrion melanicterum* Selys durch folgendes verschieden: die obere helle Pleuralstrieme des Brustkastens ist sowohl vorn am Oberrande, als auch hinten am Unterrande ausgeschnitten, derart, dass der hintere Ausschnitt durch einen dreieckigen hellen Fleck ausgefüllt wird (bei *melanicterum* ist die Strieme gerade und ohne Ausschnitte) [Differs from *Pseudagrion melanicterum* Selys in the following: the upper light pleural stripe of the chest is emarginated both at the front on the upper edge and at the back on the lower edge, such that the posterior emargination is filled by a triangular light spot (in *melanicterum* the stripe is straight and without emargination)]."

***epiphonematicum*, *Pseudagrion* 1891c: 68 (Fig. 14)**

gramm. L. (*signum*) *epiphonematicum* = exclamation mark

The name points to two markings at the mesothorax: "am Mesothorax oben jederseits eine schmale, hinten abgekürzte Schulterstrieme und hinter dieser ein Punktfleck, wodurch eine einem (bei der Beschauung des Thieres von vorn umgekehrten) Ausrufungszeichen ähnliche gelbe Figur gebildet ist [on the mesothorax above on each side a narrow

shoulder stripe, shortened at the back, and behind this a dotted spot, forming a yellow figure similar to an exclamation mark (inverted when viewing the animal from the front)]."



Fig. 14: *Pseudagrion epiphonematicum* ♂ Gabon 2012 © J. Kipping. Karsch interpreted the uppermost humeral marking as an inverted exclamation mark.

***erythropyga*, *Planiplax* (1891e: 270)**

gr. ἐρυθρός [erythros] = red + πυγή [pygē] = rump, buttocks

The color of the last five abdominal segments of the male has led to the name: "♂ ... die 5 Endglieder und die Unterseite des Hinterleibes lebhaft roth, ebenso die Anhänge [♂ ... the five terminal segments and the underside of the abdomen bright red, as well as the appendages]."

On page 271, Karsch defends his choice of this name to the person to whom he owes his specimens of the new species: "Herr Director C. Berg schreibt mir: „der von mir gewählte Name passt nicht für das ♀, da dasselbe keine lebhaft rothe Hinterleibsspitze, sondern das ganze Abdomen dunkel rostfarbig hat;“ ich sehe jedoch darin keinen hinreichenden Grund, den einmal gewählten und für das ♂ sehr bezeichnenden Art-namen *erythropyga* zu ändern ["Director C. Berg writes to me: "The name I chose is not appropriate for the ♀, since it does not have a bright red abdominal tip, but the entire abdomen is dark rust-colored;"] However, I do not see this as a sufficient reason to change the species name *erythropyga*, which was once chosen and is very descriptive for the ♂]."

extranea, *Tramea* [Karsch 1890b: 351] = ***Hydrobasileus croceus*** (Brauer, 1967b: 813)

L. *extraneus* –a –um = external, extraneous, foreign

This taxon is a construct from Kirby 1890: 177, who misunderstood Karsch's text on the genus *Hydrobasileus*, which Kirby (1889a: 314) had established for the single species

H. vittatus. Karsch stated (1890b: 351): "Ausser dem mir unbekannten *Hydrobasileus vittatus* Kirby gehört in diese Gattung noch *Tramea crocea* Brauer (*Verh. d. k. k. zool.-bot., Ges. Wien* 1867, XVII. Band, p. 813, *Tramea crocea* Brauer und *extranea* Hagen i. l., ebenda, 1868, XVIII. Band, p. 714), eine Art, welche das Königliche Museum für Naturkunde in Berlin kürzlich durch Herrn Fruhstorfer von Ceylon (Nalanda) und Penang in drei Stücken (1 ♀, 2 ♂♂) erhielt [Besides *Hydrobasileus vittatus* Kirby, unknown to me, this genus also includes *Tramea crocea* Brauer (*Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft Wien* 1867, Vol. XVII, p. 813, {which is} *Tramea crocea* Brauer and *extranea* Hagen i. l., *ibid.*, 1868, Vol. XVIII, p. 714), a species which the Royal Museum of Natural History in Berlin recently received from Mr. Fruhstorfer of Ceylon (Nalanda) and Penang in three specimens (1 ♀, 2 ♂♂)]." We see, that Karsch's intention was to complete Kirby's genus by including another species, which by Brauer had been listed in the genus *Tramea* twice, as "*crocea* Brau. Philippinen (Luzon)" and as "*extranea* Hg. i(n) I(itteris) Celebes", the latter being a *nomen nudum* also found in Hagen 1867b: 227-228). But certainly Hagen and Brauer had been in contact about that species, but not in a way that had allowed either of them to discover the synonymy.

Kirby stuck to his error. In 1893: 547 he described the taxon in question as *Hydrobasileus extraneus* subjoining the remark: "I have added a brief description of the insect, as the few particulars given by Dr. Karsch are barely sufficient for its identification."

The error was revealed by Ris 1913b: 969, when he explained Karsch's intention to state the synonymy of the taxon *Tramea extranea* Hagen had named, but never described, with *Hydrobasileus croceus* (Brauer, 1867).

When we look at the list of *Tramea* species given by Brauer 1868d: 714 we can see, that its taxa named by Hagen until then are from the Americas except *extranea* and another undescribed species, which are both from Sulawesi, so certainly external to the Americas. Brauer (1867b: 813) characterized the overall color of the taxon, for which he chose the name *crocea* [L. = saffron colored], as "lehmgelb [clay yellow]."

finschi, *Nannodiplax* 1889d: 250 = ***Brachydiplax denticauda*** (Brauer, 1867a: 301)

Karsch named his taxon after the naturalist, to whom he owed his single female specimen: "*Nannodiplax finschi* nov. spec., ♀. — S.O. Neu-Guinea, P. Moresby, durch Dr. Otto Finsch (1 ♀) [*Nannodiplax finschi* nov. spec., ♀. — South East New Guinea, Port Moresby, by Dr. Otto Finsch (1 ♀)]."

The eponym Friedrich Hermann Otto Finsch (1839-1917) was a German merchant, ethnologist, naturalist and colonial explorer. He played a great role in the German colonization of New Guinea. In 1886 he founded a harbor at the Eastern coast named Finschhafen, where for some time was the seat of the German colonial administration. For more about the eponym, who for some time also was occupied in the administration of Natural History Museums in Bremen, Leiden and Braunschweig, see Beolens 2018: 134.

Karsch's taxon was synonymized by Ris (1910b: 363-365) with Brauer's *Brachydiplax denticauda* [L. *dens*, *-ntis* = tooth + *cauda* = tail (in insects abdomen or appendages)], which received its name due to a feature of the males appendages: "Appendices sup. schwarz, so lang als die 2 letzten Ringe, wie bei andern *Diplax*-Arten geformt, ausserhalb der Mitte, an der verdickten Stelle unten ein kurzer zahnartiger breiter Fortsatz, der am

unteren Rande 4 Zähne trägt, von denen die 2 ersten grösser und getrennter sind, die 2 letzten dicht beisammen stehen [Superior appendages black, as long as the last 2 segments, formed like in other species of *Diplax*, beyond the middle beneath the thickened part a short toothlike broad extension, which has at its inferior margin 4 teeth, of which the former two are bigger and more distant, the rear ones are close to each other]."

***flavifrons*, *Nephepeltia* (1889d: 256)**

L. flavus = golden yellow, reddish yellow, flaxen-colored, blonde + *-frons* = –fronted

The name of this taxon, which Karsch based on a single specimen, goes back to this feature: "Mundtheile und Gesicht hellgelb, die Stirn nur an der Scheitelblase wie diese metallisch blau [Mouth parts and face light yellow, the forehead only metallic blue at the parietal vesicle like itself]." Karsch even classified this species in a new genus, which however turned out to be synonymous to one established by Kirby earlier in the same year, based on a different species.

***fruhstorferi*, *Hylaeothemis* (1889f: 321)**

Whereas Karsch does not give any information about the eponym there can be no doubt that this taxon from Sri Lanka (then Ceylon) is named after the German entomological collector, lepidopterist and trader Hans Fruhstorfer (1866-1922), who is known to have visited Sri Lanka in 1889. For more about the eponym, who collected around the world from 1888 until 1902 and from about 1894 settled as trader in Berlin, sending own collectors to many parts of the world, see Martin 1922; Beolens 2018: 143.

***fuliginosa*, *Heliaeschna* 1893b: 194 (Fig. 15)**

L. fuliginosus –a –um = full of soot, sooty

The name refers to the coloration of Karsch's male and female specimen: "Dunkel-kastanienbraun, Stirn oben mit undeutlichem schwarzem T, Flügel bis zur ersten verdickten Querader im Costalfelde und ganz am Grunde auch im Basalraume dunkel, schwarzbraun, sonst unregelmässig etwas getrübt [Dark chestnut brown, forehead above with indistinct black T, wings up to the first thickened transverse vein in the costal field and at the very base also in the basal area dark, blackish brown, otherwise irregularly somewhat clouded.]"



Fig. 15: *Heliaeschna fuliginosa* ♂ Gabon 2013 © J. Kipping. The mainly dark brown coloration of the taxon prompted the name.

furcifera, *Aeshna* 1891g: 310 = *Rhionaeschna multicolor* (Hagen, 1861: 121)

L. furca = a two-pronged fork + *-fer*, *-fera*, *-ferum* = *-bearing*

The cerci of Karsch's single male specimen led to the name: "obere Analanhänge am Ende gegabelt [superior anal appendages forked at the end]." But Karsch's taxon turned out to be *Rhionaeschna multicolor* (*L. multicolor* = many-colored), described by H.A. Hagen in 1861. As this species does not show significantly more colors than other aeshnids described by Hagen in the same publication, the name probably refers to the feet which are described thus: "feet black, femora rufous above, the apex black, anterior femora beneath, luteous".

furva, *Trithemis* 1899b: 370 (Fig. 16)

L. furvus *-a -um* = dark, gloomy, swarthy, black

The species was described from a single male as being "schwarzbraun [blackish brown]."

fuscifrons, *Neurogomphus* 1890d: 380

L. fuscus *-a -um* = dark, swarthy, dusky / hoarse / husky + *-frons* = *-fronted*

The black frons is an important distinguishing feature of this dark colored species, which was described from a single female: "Grundfarbe schwarz-braun, matt ... Die Art kann wegen der abweichenden Bildung ihrer schwarzen Stirn nicht zu *Ceratogomphus* Selys gehören [Basic color black-brown, dull; the lower lip, the base of the mandibles, a broad border anteriorly along the compound eyes, and the back of the head are dirty yellow. ... The species cannot belong to *Ceratogomphus* Selys because of the aberrant formation of its black forehead]."



Fig. 16: *Trithemis furva* ♂ Zambia 2012 © J. Kipping. If Karsch had had a mature male he probably would have chosen a different name for the species.

gerstaeckeri, *Pseudagrion* 1899b: 379 = *Pseudagrion spernatum* Selys, 1881: 223

Carl Eduard A. Gerstäcker (1828-1896), in his last years professor of zoology at Greifswald, in 1891 (p. 190) mentioned a *Pseudagrion* ♂, the abdomen of which had become unrecognizable due to moisture. Karsch believing he had males of the same species, named it after Gerstäcker, who had had a position at the Zoological Museum and taught at the Agricultural College at Berlin before Karsch (for more about the eponym see Beolens 2018: 151; Fliedner 2021b:16).

The taxon however was described previously by Selys in 1881, but he had credited it to Hagen, a drawing by him from a specimen from the Cape of Good Hope in the Berlin Museum and the description of which he had before him before publishing his fifth part of the Synopsis des Agrionines in 1876. At that time he did not include it into that publication out of concern about publishing a synonym due of the presence of many similar species (Selys 1881: 225). The name is not formed correctly, for the past participle of *L. sperno*, which may mean 'separate' or 'reject', correctly is *spretum*. So, if the name is by Hagen, it might have been his intention to distinguish the Berlin specimen from other *Pseudagrion* species, if it is by Selys he might have had in mind that he had not included into the publication 1876a.

gracilis, *Stenocypha* (1899a: 163)

L. gracilis –is –e = slender, thin, slim, slight

Karsch characterizes this species, which he places in the genus *Libellago*, as "Eine sehr schlanke, der *Libellago dispar* (Pal.) ähnliche Art [A very slender species similar to *Libellago dispar* (Palisot)]."

hageni, *Hypothemis* 1889d: 261 (see fig. 7 p. 24)

Apparently with this choice of name for his type species, which was based on a single female from the Fiji Islands, Karsch wanted to honor Hagen by recognizing the generic name *Hypothemis* a *nomen nudum* previously published by Hagen about 20 years earlier (Hagen 1867b: 91; see entry for *Hypothemis* p. 23). The eponym, Hermann August Hagen (1817-1893) was a German physician and an outstanding entomologist as well. He was born at Königsberg (today's Kaliningrad) in Eastern Prussia, and already as a teenager had concerned himself with Odonata. He achieved his MD at the university of his hometown in 1840 with a synonymy of the European Odonata which was the first odonatological doctoral thesis. Through this publication he came in contact with E. de Selys Longchamps, the 'Father of Odonatology', with whom he was in close cooperation until his death. As his hope to become head of a major entomological collection in Germany failed in 1867 he accepted a position at Harvard University in the US, where he became the first professor of entomology in America. For more about him see Scheiding 1963; Endersby & Fliedner 2015:44; Beolens 2018: 169; Fliedner & Endersby 2019: 43).

hageni, *Pseudagrion* 1893a: 38 (Fig. 17)

By his classification "*Pseudagrion hageni* nov(um) nom(en) [= a new name] (*praetextatum* Hagen in litt, *nec praetextatum* Selys)" Karsch corrected an error of Selys, which he describes thus: "Bezüglich des *Pseudagrion praetextatum* Selys ist dem Altmeister der Odonatenkunde einmal ein Irrthum unterlaufen, denn die von de Selys beschriebene Sansibar-Art ist unzweifelhaft identisch mit dem früher von Gerstaecker beschriebenen *Agrion*



Fig. 17: *Pseudagrion hageni* ♂ Uganda 2016 © J. Kipping. By this name Karsch honored the eminent scientist and corrected a nomenclatural error of his concerning a specimen at the Museum für Naturkunde Berlin.

deckeni, während das echte *Pseudagrion praetextatum* Hagen in litt, nach Ausweis eines männlichen Exemplares vom Cap im Berliner Museum eine gänzlich abweichende Bildung der oberen Analanhänge des ♂ von denen des *Pseudagrion praetextatum* Selys zeigt; eine deutliche Veranschauligung der sehr bedeutenden Differenzen geben die beigefügten Abbildungen [Regarding the *Pseudagrion praetextatum* Selys, the great master of odonate science once made a mistake, for the Zanzibar species described by de Selys is undoubtedly identical with the *Agrion deckeni* previously described by Gerstaecker, while the genuine *Pseudagrion praetextatum* Hagen in litt, according to a male specimen from the Cape in the Berlin Museum, shows a completely different formation of the superior anal appendages of the ♂ from those of the *Pseudagrion praetextatum* Selys; a clear illustration of the very significant differences is provided by the attached figures]."

***harterti*, *Camacina* 1890b: 359**

The species was named in honor of its collector, the German ornithologist Ernst Johann Otto Hartert (1859-1933). Karsch states his dedication with these words (p. 360): "Die prachtvolle Art wurde im Januar 1889 in einem einzigen weiblichen Exemplare vom Herrn Reserve-Lieutenant Ernst Hartert bei Batu Sankahan (vielleicht 8000' hoch) im Gebirge von Deli auf Sumatra erbeutet und ist nach ihrem Entdecker benannt [This magnificent species was captured in January 1889 in a single female specimen by Reserve Lieutenant Ernst Hartert near Batu Sankahan (perhaps 8000 feet high) in the Deli Mountains of Sumatra and is named after its discoverer]."

Hartert after his final school examinations initially followed his father's military career but also devoted himself to ornithology. From 1885 to 1886, he participated as a zoologist on an expedition to the Hausa region of West Africa, and from 1887 to 1889, he undertook a collecting trip to Indonesia and South East Asia at his own expense. He subsequently worked at zoological museums in Frankfurt am Main and London until Lord Walter Rothschild appointed him director of his private museum in Tring in 1892. In 1930, he retired and moved to Berlin, where he continued his scientific work at the Natural History Museum (Stresemann 1966; cf. Beolens 2018: 175).

***hemicolon*, *Pseudagrion* 1899a: 168 (Fig. 18a+b)**

Gr. ἡμι- [hēmi-] = half + κῶλον [kōlon] = limb, member/ part of a sentence

It seems that Karsch tried to correct the name of the punctuation mark semicolon established about the year 1500, which is combined from Latin *semi-* (= half) and the latinized form of the Greek word, giving also for the first part of the compound the correct transcription to Latin. By this name he points to the humeral stripe:

“Thoraxcomplex oben schwarz, vorn jederseits mit überall ziemlich gleich breiter hellgelber Schulterstrieme, welche hinter der Mitte kurz und aussen breiter als innen unterbrochen wird [Synthorax black above, with a light yellow shoulder stripe of fairly equal width on each side in front, which is interrupted behind the middle and short and wider on the outside than on the inside].” That the punctuation mark is at the base of the name is probable by the note at the end of the description: “Ähnlich dem *Pseudagrion epiphonematicum* K. [Similar to *Pseudagrion epiphonematicum* K.]“ (for which species see p. 39)



Fig. 18a+b: *Pseudagrion hemicolon*, typus, photo Mélanie Turiault © MfN Berlin. A second *Pseudagrion* species named by Karsch after a punctuation mark.

hemimelaena, *Microthyria* 1890e: 296 ***Erythrodiplax unimaculata*** (de Geer, 1773: 558) *Libellula*

Gr. ἡμι– [hēmi–] = half + μέλας, μέλαινα, μέλαν [melas, melaina, melan] = black, dark

The name probably refers to the coloration of the wings: "Flügel hyalin, die Basis der Vorderflügel bis zur zweiten Antenodalquerader und dem Innern Dreieck dunkelbraun, die der Hinterflügel bis zur vierten Antenodalquerader und dem Ende der cellula cardinalis tiefer schwarzbraun [Wings hyaline, the base of the forewings up to the second antenodal cross vein and the inner triangle dark brown, those of the hindwings up to the fourth antenodal cross vein and the end of the cellula cardinalis deeper black-brown]." But the species had already been named by de Geer more than hundred years previously as *unimaculata* (L. *uni*– (in compounds) = one, with a single + *maculatus* –a –um = spotted, stained) because of this feature: "Demoiselle à tête ronde, à ailes blanches avec une grande tache brune à leur origine [Round-headed dragonfly with white wings with a large brown spot at their base]."

herculea, *Libellula* 1889b: 235

L. *Herculeus* –a –um = of Hercules, Herculean

In ancient mythology the hero Herakles (Latinized Hercules) was known for his big stature and his strength. So the extraordinary size of his specimens probably prompted Karsch to adopt the manuscript name from the collection at his museum: "Das Königliche Museum für Naturkunde in Berlin besitzt ein altes, sehr grosses weibliches Exemplar dieser Art von Puerto Cabello (durch Appun) unter dem Manuscriptnamen *Libellula herculea*, sowie mehrere übereinstimmende Exemplare beiderlei Geschlechts von Costa Rica (durch Hoffmann), von Columbien (durch Starke) und von Theresopolis in Brasilien, Provinz Sta. Catharina (durch Fruhstorfer) [The Royal Museum of Natural History in Berlin possesses an old, very large female specimen of this species from Puerto Cabello (by Appun) under the manuscript name *Libellula herculea*, as well as several matching specimens of both sexes from Costa Rica (by Hoffmann), from Colombia (by Starke), and from Theresopolis in Brazil, Province of Santa Catharina (by Fruhstorfer)]." C.F. Appun (1820-1872), to whom Karsch attributes the name, was a German natural scientist who, starting in 1849, spent ten years exploring Venezuela, and later British Guiana and Brazil. He died after a stay in his homeland from 1868 to 1871 during a further stay in British Guiana.

hildebrandti, *Neodythemis* 1889d: 252

This is an eponym. Karsch's dedicated the type species of *Neodythemis* to its collector: "4. *Neodythemis hildebrandti* nov. sp., ♂ ♀. — Madagascar, durch J. M. Hildebrandt (1 Pärchen) [by J.M. Hildebrandt (1 couple)]." Johann Maria Hildebrandt (1847-1881) was a German botanist, explorer and collector. After the loss of an eye rendered him unfit for his trained profession as a mechanical engineer, he switched to gardening. In this profession, he initially worked in the botanical gardens of Halle and Berlin before embarking on his first expedition in 1872, which took him via Egypt and Arabia to Abyssinia and the Somali countries. In 1874, he returned to Berlin, but from 1875 to 1877, he again visited the Somali coast, the Comoros island of Anjouan, Zanzibar, and the opposite mainland coast, including Kenya until illness forced him to return to Berlin. In 1879, he embarked on an expedition to Madagascar, where he died of an illness in 1881. A wealth

of material from his research trips found its way into the Berlin museums (Ratzel 1905; Beolens 2018: 182).

Karsch already in 1885 had named a dipteran *Microstylum hildebrandti* (see Schmidtke 2001, No. 83) from central Madagascar after him, which however later turned out to be a younger synonym of *Microstylum radamae* Karsch, 1884, named after a late monarch of that Island.

imitans, *Macrothemis* 1890b: 367 (Fig. 19)

L. *imitans*: present participle of *imito* = to imitate.

The name refers to the similarity of the taxon to a Selysian species (p. 368): "Diese *Macrothemis*-Art zeigt in Grösse, Gestalt und Färbung eine so augenfällige Aehnlichkeit mit *Micrathyria didyma* Selys, dass sie namentlich im männlichen Geschlechte leicht mit dieser verwechselt werden kann [this *Macrothemis* species has such a striking similarity to *Micrathyria didyma* Selys in size, shape and coloration that it easily might be mistaken for this species, especially the males]."



Fig. 19: *Macrothemis imitans* ♂ Argentina Salta Province, 20 km SE Isla de Cañas, 2008 © N. von Ellenrieder. The species received its name because of the similarity to a Selysian species which had been placed by Kirby in his new genus *Micrathyria* the year before.

impartita, *Brachythemis* (1890e: 297) (see fig. 11 p. 33)

L. prefix *in-* = un-, not + *partitus* *-a -um* = divided

The name refers to the feature, by which this taxon differs from *B. lacustris* Kirby, which Karsch had made type species of his genus *Zonothrasys* (p. 298): "Die cellula cardinalis und das innere Dreieck sind auch im Vorderflügel ungetheilt [The triangle and the inner triangle are also undivided in the forewing]." Karsch's species was long considered a junior synonym of *B. leucosticta** (Burmeister, 1839), until Dijkstra & Matushkina (2009) determined that two species were concealed within Burmeister's taxon.

***incarnata*, *Archineura* (1892a: 455)**

L. *incarnatus* –a –um = flesh-coloured [originally: been made flesh (= become man in Christian language)]

The name is due to the large carmine-red patches on the wing bases of the males: “*alis hyalinis, nitidis, tertia parte basali pulcherrime chermesina vel rosea*” [the wings hyaline, shining, their basal third part most prettily crimson or rosy] and “*die Flügel sind gläsig, glänzend, im Wurzel-Drittel jedoch undurchsichtig und prachtvoll matt roth, bei einem der beiden Exemplare tief carminroth, bei den andern rosenroth*” [The wings are glassy and shiny, but opaque and a gorgeous matte red in the root third. One of the two specimens is deep carmine red, while the others are rose red].”

***incongruens*, *Aethiothemis* (1893a: 26)**

L. prefix *in-* = un-, not + *congruens* = agreeing, fit, appropriate, suitable, consistent, congruous

A difference in the wing venation of fore wings and hind wings might have led to the name (p. 27): “*Vorderflügel: ... gleich am Dreieck drei Längsreihen von Zellen, dann bald nur zwei Reihen und 7 – 8 Marginalzellen im Discoidalfelde; ... Hinterflügel: ... Dreieck, anfangs zwei Längsreihen von Zellen und 12 Marginalzellen im Discoidalfelde*” [Forewing: ... immediately adjacent to the triangle, three longitudinal rows of cells, then soon only two rows and 7–8 marginal cells in the discoidal field; ... Hindwing: ... Triangle, initially two longitudinal rows of cells and 12 marginal cells in the discoidal field].”

***infesta*, *Hadrothemis* (1891c: 79) (see cover photo)**

L. *infestus* –a –um = hostile / unsafe, dangerous

The name is enigmatic, if it is not chosen in reference to Karsch's generic name *Archiclops* (see p. 20), which name certainly represents a dangerous profession.



Fig. 20: *Agriocnemis inversa* ♂ Rwanda 2019 © J. Kipping. The proportions of the cerci and lower appendages, which gave the species its name, are clearly visible.

***inversa*, *Agriocnemis* 1899b: 380 (Fig. 20)**

L. *inversus* –a –um = inverted, perverted, upside down

The unusual length ratio of cerci and styli of the males is at the base of the name (p. 381): "Obere Analanhänge (Cerci) des ♂ viel kürzer als die unteren und als das 10. Segment [Upper anal appendages (cerci) of the ♂ much shorter than the lower ones and than the 10th segment]."

***jejuna*, *Chlorocypha* (1898a: 345**

L. *jejunus* –a –um = fasting, abstinent, hungry / poor, barren, powerless/ scanty

As usual, the original description provides no explanation for the choice of this name. An indication of malnutrition in Karsch's type specimen is highly unlikely, so the explanation must be sought in one of the figurative meanings of the epithet. The following remark could provide a clue (p.346): "Die neue Art steht der *Libellago luminosa* K. am nächsten, weicht aber in der Zeichnung des Brustkorbes und des Hinterleibes völlig ab [The new species is closest to *Libellago luminosa* K., but differs completely in the pattern of the thorax and abdomen]." The name of that species is caused by the luminous yellow coloration of its wings (see p. 55). In comparison, the yellow coloration limited to the wing base in *C. jejuna* appears much more subdued.

***klenei*, *Euthore* (1891h: 113)**

Karsch does not give a reason for his dedication. Heinrich Peter Klene (1845-1922) was a Jesuit priest active in entomology and was born in a small community in the Grand Duchy of Oldenburg in northwestern Germany. After graduating from school in 1868, he began studying philosophy and natural sciences in Münster. But just one year later, he joined the Jesuit order as a novice and continued his education at its training center in Maria Laach. Since then, his fate has been linked to the history of the Jesuits in Germany. After the proclamation of the dogma of papal infallibility, the Jesuit order was legally banned from Germany in 1872 because of its commitment to absolute loyalty to the Pope. Furthermore, its members were banned from the German Empire. So Klene had to continue his studies in Blijenbeek (Netherlands) and later Feldkirch (Austria) until 1878. He then completed his theological studies in England and was ordained a priest in 1881. From 1883 to 1885 he taught natural science at a school near Copenhagen (Denmark). He spent the rest of his life in establishments of his order, from 1886 on again in Feldkirch, where he was also responsible for the natural history collections and their exhibition, and from 1909 in Valkenburg (Netherlands), where he also had to prepare insects in the entomological collection and expanded it by numerous additions of Diptera. For more see Clemens 1933.

***klingi*, *Neodythemis* (1890b: 390) (Fig. 21)**

The species is named after the collector of the ♂ type specimen in the German colony Togo (p. 391): "Die Beschreibung ist auf ein einzelnes Weibchen, welches das Königliche Museum für Naturkunde in Berlin von der Firma Dr. Staudinger erwarb und auf ein von Herrn Premier-Lieutenant Kling auf seinen Ausflügen von der Station Bismarckburg im Hinterland von Togo erbeutetes Männchen gestützt [The description is based on a single female acquired by the Royal Museum of Natural History in Berlin from Dr. Staudinger and on a male captured by Premier Lieutenant Kling during his excursions from the Bismarck-



Fig. 21: *Neodythemis klingi* ♂ Angola 2019 © J. Kipping. This is one of the species named by Karsch after a German colonial officer.

burg station in the hinterland of Togo]." The eponym Eugen (as named by Karsch 1893a and Hantzsch 1906) or Erich (as named in Wikipedia in reference to his tomb stone in Berlin) Kling (1854-1892) was a German colonial officer, who after a thorough scientific training not only had military duties, but also endeavored to undertake geographical exploration and development in the German colonies in West Africa, as well as scientific research in natural history through expeditions (1888-89 in Togo, 1891-92 in northern Togo and Dahomey). A severe dysentery forced his return to Berlin in 1892, from which he died soon after. His collection material came, at least in part, to the Berlin Natural History Museum and was analyzed by Karsch (1893a). Contrary to what is stated in Beolens 2018: 223, he did not take part in the German Congo expedition 1884-1886).

kricheldorffi, *Matrona* 1892a: 456

= *Matrona basilaris* Selys, 1853: 17

This is an eponym, named after the collector of the type specimens: "Diese neue Art ist nach Herrn Franz Kricheldorff benannt, welcher die beiden hier beschriebenen neuen Arten in China selbst erbeutet hat [This new species is named after Mr. Franz Kricheldorff, who captured the two new species described here in China himself]." The type specimens, 1 ♂, 1 ♀, were collected at "Omi-shan p(rovincia) Kiating, China occidentalis [Emeishan, province Sichuan, Western China]" in 1890.

Franz Kricheldorff (1854-1924) was a German insect dealer and collector living at Berlin, who was hired to accompany the English naturalist and explorer Antwerp Edgar Pratt (1850-1920) to China and Tibet in 1889-90. More about the eponym can be found in Beolens 2018: 228, Hämmäläinen & Fliedner 2022: 92.

Later it turned out that Karsch's taxon was a junior synonym of the Selysian species *Matrona basilaris* [L. = pertaining to the base] the name of which is understood best from the detailed characterization of the genus *Matrona* in Selys & Hagen 1854a: 52: "Le groupe unique (*M. basilaris*) sur lequel j'ai fondé ce sous-genre ne comprend jusqu'ici qu'une seule espèce, tres-remarquable par son espace basilaire biréticulé et par le coloration laiteuse des nervules de la moitié basale des ailes [The single group (*M. basilaris*) on which I founded this subgenus comprises so far only one species, very remarkable for its bireticular basilar space and for the milky coloration of the nervules of the basal half of the wings]."

***kuekenthali*, *Tyriobapta* (1900a: 229)**

The species is named after Willy Küenthal (1861-1922), who had collected the type specimen on a zoological collecting expedition to the Maluku Islands and Borneo, which he had undertaken sponsored by the Senckenberg Society in Frankfurt am Main in 1893-94. Among his dragonfly yield, one male particularly caught Karsch's attention, "welches mir auch nach sorgfältigstem Studium der gesamten Litteratur unbestimmbar blieb und daher als neue Gattung und Art (... *Monocoptera küenthalii*) beschrieben werden musste [which remained undetermined to me even after careful study of the entire literature and therefore had to be described as a new genus and species (... *Monocoptera kuekenthali*)] (p. 211)." The German zoologist W. Küenthal completed his doctorate and habilitation in Jena under Ernst Hæckel and was a professor in Jena (from 1890), Breslau (from 1898), and Berlin (from 1918). In connection with his research, he undertook several long journeys, in addition to the one mentioned above, to the Arctic region, Norway, Corsica, and California, and researched, among other things, the evolutionary history of whales (more about him can be found in Autrum 1982 and Beolens 2018: 230).

***lacuselephantum*, *Africocypha* (1899a: 165)**

L. lacūs elephantum = of the lake of elephants (two words in the genitive case)

Karsch's choice of name finds an explanation in this remark (p. 161): "Die hier aufgeführten 27 Odonaten bilden einen werthvollen Bestandtheil der überaus reichen und interessanten Insectenausbeute des Herrn Leopold Conradt auf der deutschen Station Johann-Albrecht-Höhe am Elephantensee in Nord-Kamerun aus den Jahren 1895 und 1896 und sind jetzt Eigenthum der zoologischen Sammlung des Museums für Naturkunde zu Berlin [The 27 odonates listed here form a valuable part of the extremely rich and interesting insect harvest of Mr. Leopold Conradt at the German station Johann-Albrecht-Höhe on the Elephant Lake in northern Cameroon in the years 1895 and 1896 and are now the property of the zoological collection of the Museum of Natural History in Berlin]."

***lacustris*, *Paragomphus* (1890d: 377)**

scientific *L. lacustris* –is –e = pertaining to a lake

The provenance of Karsch's specimens from Lake Tanganyika is at the base of the name (p. 378): "3 schlecht erhaltene Stücke, 2 ♂ ♂, 1 ♀, vom Tanganjika-See durch Herrn Paul Reichard [3 poorly preserved specimens, 2 ♂ ♂, 1 ♀, from Lake Tanganyika by Mr. Paul Reichard]."

leoninum, *Orthetrum* 1891b: 59 = ***Orthetrum angustiventre*** (Rambur, 1842: 59)

L. leoninus –a –um = of or belonging to a lion, a lion's

The name certainly indicates the origin of Karsch's specimens: "*Orthetrum leoninum* nob. ♂ ♀. — Sierra Leone", but it could also be a play on words with the overall coloration, which is described as "dirty yellow", which would be appropriate for lions. For *O. angustiventre* see *aequale* (p. 34).

limbalis, *Gynacantha* 1892c: 252

L. limbus = a border, hem, edge, selvage, fringe + suffix –*alis* –*is* –*e* = pertaining to

The coloration of the anterior margin of the wings led to the name of this species, which was described from a single ♂ (p. 253): "der ganze Subcostalraum nebst dem Enddrittel des Costalraumes, sowie der ganze Vorderrand im Postcostalraume ist fast bis zur Spitze in beiden Flügelpaaren bis zum Sector principalis gelbbraun ausgefüllt [the entire subcostal space including the terminal third of the costal space, as well as the entire anterior margin in the postcostal space is filled with yellow-brown almost to the tip in both pairs of wings up to the principal sector]."

lineatipes, *Paltothemis* 1890b: 363 (Fig. 22)

L. linea = thread, line + suffix –*atus* –*ata* –*atum* = provided with + –*pes* (in compounds) = –footed, referring to striped legs.



Fig. 22: *Paltothemis lineatipes*
♂ New Mexico, Grant Co., East Fork of Gila River at New Mexico Hwy 16, 1984 © R. Garrison. The species is found at rocky streams from California and Texas to Costa Rica.

The species name is explained by this part of the description: "Beine schwarz, Schenkelwurzeln gelb, der Rücken der Schenkel und Schienen mit gelber Längslinie [Legs black, bases of the femora yellow, the posterior side of femora and tibiae with a yellow longitudinal line]."

liriopa, *Dasythemis* 1889d: 252 = ***Dasythemis venosa*** (Burmeister, 1839: 848)

L. Liriopé = a fountain-nymph, the mother of Narcissus by the river god Cephisus (from Gr. λείριος [leirios]= lily-like + –οψ (genitive –οπος) [–ops, –opos] = –looking)

This name is one of the three taken by Karsch from ancient mythology (for *herculea* see p. 47, for *musa* see p. 58). It was chosen for three damaged ♂ specimens from Brazil. He might have been induced to his choice of name by Hagen 1861, where on p. 317 a *Dythemis liriopé* from Brazil is mentioned as a *nomen nudum* (see Ris 1910b: 303,

who synonymized Karsch's taxon, whose type he had seen, with Burmeister's rather variable species). Karsch did not see that his taxon pertained to *D. venosa* (L. *venosus* –a –um = full of veins; spectacular by its veins), which received its name for this reason: "venis alarum omnibus infuscatis [all the wing veins blackened]." That the name given by Burmeister cannot refer to dense venation is explained under *Dasythemis* p. 22.

lugubris, *Olpogastra* 1895a: 199 (see fig. 10 p. 30)

L. lugubris –is –e = of or belonging to mourning, mourning–

In that publication Karsch described a single ♀ specimen from the Berlin Zoological Museum, which had been collected and named by C.G. Ehrenberg (1795-1876) in Nubia in the 1820s. His specimen, Karsch says, is "Vorwiegend schwarz, reichlich gelb gefleckt [Mainly black, abundant yellow spots]." So the name might have been chosen in reference to mourning apparel which uses to be black.

luminans, *Diplacodes* (1893a: 22) (Fig. 23)

L. luminans = brightening, illuminating, lighting up

This species, which is widespread in subsaharan Africa, was described by Karsch in a publication on the entomofauna of Inner Togo from three ♂ specimens from East Africa (Tansania, Sansibar coast and Maputo Bay, not correctly quoted in Fliedner 2025: 68). The name probably was chosen in reference to several markings of head, prothorax, thorax and abdomen, and wing bases and pterostigmata, which are described as "honig-gelb [honey yellow]."



Fig. 23: *Diplacodes luminans* ♂ Botswana 2006 © J. Kipping. The photo shows well the brightening appearance of the species.

***luminosa*, *Chlorocypha* (1893a: 33)**

L. luminosus –a –um = full of light, luminous, conspicuous

The name might have been evoked as mentioned in the key (p. 32): "Flügel bis zur Mitte sehr intensiv, dann matter gelb [Wings very intense up to the middle, then duller yellow]," but it is more probable, that it refers to the coloration of the abdomen described thus (p. 33): "alle Ringe jederseits neben der schwarzen Mittellängskante ausgedehnt gelb [all segments on each side next to the black central longitudinal edge extendedly yellow]."

luxuriosa, *Pseudomacromia* 1893a: 21

= ***Zygonyx ida*** Selys, 1869b: 96

L. luxuriosus –a –um = luxuriant, exuberant

Like the foregoing two taxa this one with types collected by H. Fruhstorfer (see p. 42) in Java is described in a publication on insects from the interior of Togo. About it Karsch states: "Das Museum für Naturkunde in Berlin erhielt jedoch kürzlich auch eine herrliche Art derselben Gattung von Java ... die ich, da sie unbeschrieben zu sein scheint, *Pseudomacromia luxuriosa* nenne [However, the Museum of Natural History in Berlin recently received a magnificent species of the same genus from Java ... which, as it appears to be undescribed, I call *Pseudomacromia luxuriosa*.]" One can only guess what was meant by 'herrlich' by Karsch, but it most likely concerned elements of the exterior coloration, resplendence and markings, which are described thus: "Scheitelblase metallisch blau, Nase obenauf metallisch blau, vorn gelbbraun, Unterlippe schwarz, an den Seitenrändern schmal hellgelb [Vesicle of the vertex metallic blue, nasus metallic blue on top, yellow-brown in front, mandible black, narrowly light yellow on the lateral edges]" or "zwischen den Flügelwurzeln mit drei gelben Flecken hinter einander, Pleuren wie abgerieben glänzend [three consecutive yellow spots between the wing roots, pleura shiny as if rubbed off]" or "Flügel ... beim ♀ am Grunde bis zum Arculus intensiv prachtvoll gelb und auf den Vorderflügeln durch braune Umsäumung der Adern im Spitzendrittel bunt [Wings ... in the ♀ an intense, magnificent yellow at the base up to the arculus, and on the forewings variegated by brown edging of the veins in the apical third]" or finally "Hinterleib schwarz, 2. Ring mit hellgelben Seitenflecken, 3. Ring am Vorderrande und über der Querkante gelb, sowie jederseits mit gelblichem Längswisch, 4. – 8. Ring am Vorderrande schmal hellgelb [Abdomen black, 2nd segment with light yellow lateral spots, 3rd segment on the anterior margin and above the transverse edge yellow, as well as with yellowish longitudinal streaks on each side, 4th – 8th segments on the anterior margin narrow light yellow]."

Karsch did not see that his taxon was *Zygonyx ida*, which he had been working on in 1890a: 281; but that was not surprising given that the description of the species by Selys had been announced in Hagen 1867: 62, and it had been mentioned as a species from Java by Selys 1869b: 96, who only gave as characteristics yellow rings on segments 2 – 8. So there is no explanation for the choice of name, but as it was capitalized, it must allude to a proper name. According to Greek mythology the goddess Rhea bore children for Kronos the supreme god, who, however, fearing an oracle, that a son would deprive him of his reign, devoured the newborn children. So, when the third son, Zeus was born, she fed Kronos a stone wrapped in swaddling clothes and gave the infant to two mountain nymphs, Adrasteia and Ida, who raised him with the milk of the goat Amaltheia in a

mountain cave on Crete. Later Zeus rewarded Ida andAdrasteia by turning them into the constellations of Ursa Major and Ursa Minor.]

madegassus, *Paragomphus* (1890d: 378)

mod. L. *Madegassus* –a –um = Malagasy

Karsch states about his specimen: "Ein einzelnes ♀ von J. M. Hildebrandt im Juni 1880 auf Madagaskar erbeutet: die erste Gomphide dieser Insel [A single ♀ captured by J. M. Hildebrandt in June 1880 in Madagascar: the first gomphid of this island]." (About the collector see hildebrandti p. 47)

martinae, *Micromerus* 1891d: 244
= ***Libellago semiopaca*** (Selys, 1873: 617) (Fig. 24)

Karsch does not explain his choice of name, but the taxon is published in a paper titled "Sumatranische Odonaten, gesammelt von Herrn Hofrath Dr. med. L. Martin in Bindjei (Deli) [Sumatran odonates, collected by court counselor L. Martin MD in Bindjei (Deli)]." But as the name is used in the feminine genitive form the name most probably is given in honor of the collector's wife, who is not mentioned by Karsch; but as a son of Martin is referred to in Rosen (1924: 8), there also must have been a wife. But in this case the reason of dedication should have been mentioned. But there might be a different explanation. Nine months later he dedicated a species *paula* to the collector Paul Preuss (1892b:

15; see. p. 61). From both collectors he had received rich material. So the dedication by female names might show a strange kind of humor.

The eponym, Ludwig Martin (1858-1924) was already fascinated by butterflies during his school days, which he collected and bred, even acquiring exotic species from the Staudinger company. After studying medicine in his hometown of Munich, he continued his education in Berlin, Vienna, and Cologne. From 1882 to 1895, he was employed by two Dutch tobacco companies, providing medical care for plantations in North Sumatra, from where he also sent preserved insects, mainly butterflies, to Europe. On his return, he spent some time in Darjeeling (India). Later, he served as a Dutch military physician in South Sulawesi

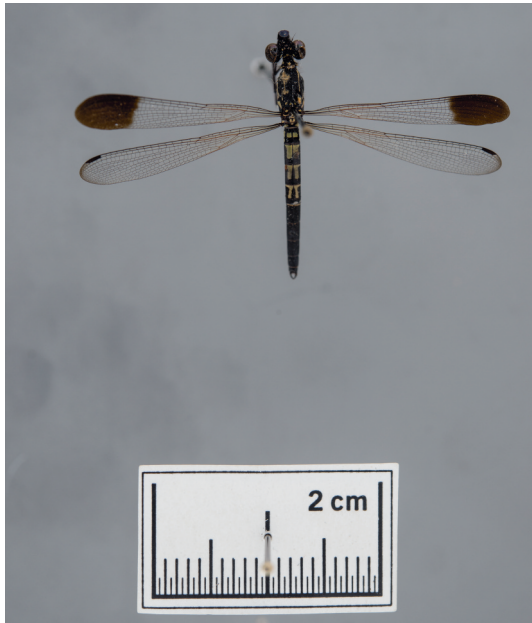


Fig. 24: *Micromerus martinae*, type specimen, photo Mélanie Turiault © MfN Berlin. What prompted Karsch to choose this feminine name is no longer ascertainable, unless, unexpectedly, a corresponding document were to surface.

(1906), West Borneo (1909-10), and Central Sulawesi (1912-1914), where he continued his collecting activities. After his return home, he took over the medical care of the prisoner of war camp in Puchheim near Munich, which existed until 1921. There he died in 1924 (for more see Rosen 1925; Beolens 2018: 274).

The name *semiopaca* (L. *semi*– = half + *opacus* –a –um = shaded, shady) goes back to this feature of the males (females were unknown then): “Ailes hyalines, les supérieures sans ptérostigma, ayant leurs deux cinquièmes terminaux noirs, cette partie (logue 6mm ¼) plus étendue que chez aucune autre espèce; un peu convexe dedans [Wings hyaline, the upper ones without pterostigma, having their two-fifths terminals black, this part (length 6mm ¼) more extensive than in any other species; a little convex inside].”

***membranalis*, *Gynacantha* 1891f: 281**

L. *membrana* = a skin, membrane + suffix *-alis* –is –e = pertaining to

The species is presented in a key, where it is separated from the next one by this feature: “Membranula mässig gross [Membranula moderately large].” (In the other species *G. gracilis* Burmeister the membranula is smaller). The complete description can be found in the next publication (1891g: 305)

***membranulata*, *Pentathemis* 1890c: 34**

L. *membranula* = a little skin or membrane + suffix *-atus* –a –um = provided with

The distinctive membranula of the single ♀ type specimen led to the name: “Membranula gross, weisslich, auf der Mitte schwärzlichgrau [Membranula large, whitish, blackish-grey in the center].” (For more see Endersby & Fliedner 2015: 178).

***metallifrons*, *Corduliops* 1890b: 375 = *Chalcostephia flavifrons* Kirby, 1889a: 337**

L. *metallum* = metal + *–frons* = –fronted

The name was chosen due to the metallic appearance of the frons of Karsch's single ♂ type specimen: “Gesicht und Unterlippe hell gelb, die flache Oberseite der Stirn bis vorn zur Querkante metallisch grün, Ozellenwulst metallisch blau [Face and labium bright yellow, the flat upper surface of the forehead up to the transverse edge metallic green, the tubercle near the ocellar ridge metallic blue].”

In Kirby's description of the species the year before gives the same characteristics of coloration, but he selected a different one, when he named the taxon *flavifrons* (L. *flavus* –a –um = yellow): “Male.- Face yellow, upper part of clypeus coppery green, shading into blue on the summit and on the frontal tubercle.”

***mima*, *Rhinagrion* (1891d: 242)**

L. *mima* (borrowed from Greek) = a female mimic, mime

Karsch described the taxon in the genus *Amphilestes*, which genus name, as it was pre-occupied in fossil mammals, was replaced by *Rhinagrion* by Calvert (1913: 258). At the end of his description Karsch listed diagnostic differences to other species of the genus, for which the new taxon might be mistaken as if it was imitating them.

***mincki*, *Dasythemis* (1890b: 382)**

The reason of the dedication is found in a footnote: “Nach Herrn Kaufmann Max Minck, welcher sich als langjähriger Schriftführer viele Verdienste um den Berliner Entomologischen Verein erworben hat [Named after Mr. Max Minck, merchant, who, as long-time

secretary, has rendered many services to the Berlin Entomological Society].” From the rubric “Vereins-Angelegenheiten [Matters of the Society]” in the Berliner entomologische Zeitschrift is to be seen, that Minck joined the ‘Entomologischer Verein’ in 1881 being interested in Lepidoptera and in 1885 he became Deputy Secretary of that society, and from the next year until 1889 was its secretary, but is mentioned as a member still in 1899 and from 1892 until 1894 is said to have donated bound copies of that periodical. Karsch obviously felt very close to him through their shared work on the society’s board. Beolens 2018: 290 mentions also a species of lepidoptera named after Minck, but I only found a variety of *Pyronia tithonus* (Linnaeus), which bears his name (see Seebold 1891).

montanus, *Idionyx* 1891a: 30

L. *montanus* –a –um = of mountains, belonging to mountains

The species received its name because the single specimen came from a mountain region in Java: “*Idionyx montana*, ♂. — Vom Fengger- Gebirge, Ost-Java, 4000’ Meereshöhe [*Idionyx montana*, ♂. — From the Fengger Mountains, East Java, 4000’ above sea level].”

mundula, *Dicranopyga* 1890a: 282 = **Aethriamanta rezia** Kirby, 1889b: 298

L. *mundulus* –a –um = nice, trim, neat, elegant

Karsch addresses the new taxon from the Eastern coast of Africa as a “zierliche(n) Art [delicate species].” But the species had already been described in the year before from Madagascar by Kirby, who provides no explanation for his choice of name. The name *Rezia* is found in the bible in the first book of Chronicles in a genealogy of the Asherites, one of the twelve tribes of Israel.

musa, *Gynacantha* 1892c: 254

L. *Musa* = a muse, one of the nine Muses (goddesses of poetry, music, and all liberal arts)

There is no explanation for the choice of name, but certainly a Muse is an example of charming femininity, a topic found more often in odonatological nomenclature since Linnaeus’ species names *virgo* and *puella* (see also entry *terpsichore* in Fliedner 2025: 58).

mysticum, *Neuragrion* 1891h: 105 = **Heteropodagrion sanguinipes** Selys, 1885: cxliv

L. *mysticus* –a –um = mystic, mystical, mysterious

It is probable that Karsch chose this name meant as ‘enigmatic’ or ‘puzzling’, as he saw that his single ♀ specimen pertained to Selys’ Heteropodagrionidae, but in his opinion it belonged to a new genus *Neuragrion* (see p. 28) positioned between *Mesagrion* and *Heteropodagrion*. That Karsch’s taxon really was a junior synonym of the Selysian species was suggested by Garrison & von Ellenrieder 2005. The name is combined from L. *sanguis* = blood and –pes = –footed, in Selys description “pieds rouges ou rougeâtres [feet red or reddish].”

nodiplaga, *Orthemis* 1891e: 267 (Fig. 25)

L. *nodus* = a knot + *plaga* = region, quarter, tract

An explanation for this name is to be seen from a distinguishing feature mentioned on p. 268: “Eine durch die fleckenartig gesäumte Querader des Nodus aller Flügel ausgezeichnete und leicht kenntliche Art, welche ungeachtet ihres weniger plumpen Hinterleibes eine echte *Orthemis* ist [A species distinguished and easily recognizable by the



Fig. 25: *Orthemis nodiplaga* ♂ Salta Catas, Argentina 2008 © R. Garrison. The transverse vein at the nodus, to which the name refers, is clearly visible.

spotted transverse vein of the nodus on all wings, which, despite its less clumsy abdomen, is a true *Orthemis*]."

nubilipennis, *Chlorocnemis* 1893a: 37 = *Allocnemis flavipennis* (Selys, 1863: 176)

L. nubilus –a –um = cloudy, overcast + –pennis = –winged

The name refers to a feature of the wings: "Diese kleine *Chlorocnemis*-Art steht durch ihre wolkigen Flügel im männlichen Geschlechte sowie durch ihren langgezogenen vorderen Sector des Dreiecks in der Gattung *Chlorocnemis* isolirt [This small *Chlorocnemis* species is isolated in the genus *Chlorocnemis* by its cloudy wings in the male sex and by its elongated anterior sector of the triangle]." The genus *Chlorocnemis*, in which Karsch described his taxon, has now been merged into the genus *Allocnemis* (Dijkstra et al. 2014: 79). Karsch did not see, that his taxon (described from three ♂ specimens) was the species *Allocnemis flavipennis* (*L. flavus* –a –um = yellow) described by Selys thirty years before under a name given for this reason: "♂ adulte. Ailes d'un safrané vif [♂ adult. Wings of a bright saffron]" adding later: "Je ne connais pas jusqu'ici d'autre Agrionine ayant les ailes de ce safrané vif [I do not know of any other Agrionine with wings of this vivid saffron color]." As Karsch does not mention this vivid saffron coloration of the wings his specimens may have been teneral.

nuptialis, *Trithemis* 1894b: 12 (fig. 30 p. 80)

L. *nuptialis* –is –e = of or belonging to a marriage, wedding-, nuptial

Karsch did not provide an explanation for the name of his taxon which was described from three ♂ specimens; but it is his first publication to include large-format illustrations of the copulatory organs of the male libellulids. The name might, therefore, be intended to point to a means of identifying the species, but this is merely a guess.

nycteris, *Tauriphila* 1890b: 351

= ***Tauriphila argo*** (Hagen, 1869: 263)

Gr. νυκτερίς [*nycteris*] = bat

In that paragraph of his publication Karsch discusses the genus *Tauriphila* Kirby (for which see p. 79), to which then pertained to Hagen's species *T. argo* from Brazil (mentioned as *nomen nudum* already Hagen 1861: 316) and *T. australis* (1867). At the same time Hagen also described *T. iphigenia*, which, at that time, was not recognized as a synonym of *T. australis*. In this context Karsch states: "Vielleicht bilden die drei von Hagen bekannt gemachten Thiere blos Spielarten einer sehr variablen Spezies [Perhaps the three animals described by Hagen are merely varieties of a highly variable species]" and he adds: "Eine solche Spielart ist wahrscheinlich auch ein im Königlichen Museum für Naturkunde in Berlin befindliches weibliches Stück von Bahia (Sello) mit dem Namen *nycteris* in litt [A female specimen located in the Royal Museum of Natural History in Berlin from Bahia (Sello) with the name *nycteris* in litt., is probably also such a variety]." From this remark we see that this specimen most probably was among the collections received from Friedrich Sello[w] (1789 – 1831) who explored the natural history of Brazil from 1818 until his death and whose diaries and reports on excursions are kept at the Berlin Museum. Unfortunately, Karsch's description of the species does not contain any further information that could explain why it was given this name.

Karsch's taxon is supposed to be a synonym of Hagen's species *T. argo*, named from Greek mythology, where the ship Ἀργώ [*Argō*] named after its builder Argos or from the adjective ἀργός (*argos* = shining or swift-footed) was used by Jason and his Argonauts to fetch the Golden Fleece from Kolchis.

pachystigma, *Oligoclada* 1890b: 383

Gr. παχύς [*pachys*] = thick, stout + στίγμα = tattoo-mark; mark, spot

The name goes back to this feature: "Pterostigma schmutzig gelb, dick schwarz gerandet [Pterostigma dirty yellow, thickly edged with black]."

partitus, *Zonothrasys* 1890e: 297

= ***Brachythemis lacustris*** (Kirby 1889a: 329)

L. *partitus* –a –um = divided up

This taxon was one of two species from the river Benue in western Africa on which Karsch based his genus *Zonothrasys* (cf. p. 32). It was to be distinguished from the other one (*Z. impartitus*, see p. 48) by this feature: "Die cellula cardinalis und das innere Dreieck im Vorderflügel je durch eine Querader getheilt [The cellula cardinalis and the inner triangle in the forewing each divided by a transverse vein]." Ris (1911: 586) synonymized the taxon with a species described by Kirby in 1889 (p. 329) from Wadelai at the White Nile, which is the outflow of Lake Albert. The name *lacustris* (L. = pertaining to a lake), which is not explained by Kirby, might refer to this vicinity.

***paula*, *Phyllomacromia* (1892b: 15)**

This species was described in a paper titled: "Eine neue von Herrn Dr. P a u l P r e u s s bei Buea im Kamerungebirge entdeckte Odonate der Gattung M a c r o m i a [A new odonate of the genus *Macromia* discovered by Dr. Paul Preuss near Buea in the Cameroon Mountains]". As the name of the collector is set in blocked print, it can be assumed that the species name is a dedication to him. It seems strange, however, that Karsch chose the feminine gender for a male eponym, as we had already seen with the species *martinae* (p. 56). That the Latin adjective *paulus* –a –um = little, small has led to the name is out of question given an abdominal length of 60 mm of Karsch's single ♂ specimen. For more about the eponym see *preussi* p. 62.

***poeciloptera*, *Oligoaeschna* (1889c: 239)**

Gr. ποικίλος [poikilos] = many-coloured, spotted, pied, dappled + Latinized feminine form of –πτερος [–pteros] = –winged

The name refers to the wings of Karsch's ♀ specimen (the ♂ specimen had been preserved in alcohol, so Karsch was not sure whether its wings were uncolored or discolored), which are described thus: "die ganze Flügelfläche bis zum Pterostigma hin intensiv gelbgetrübt; an den Innenrand des Pterostigma grenzt eine durch braune Umrandung der Adern fleckenartig verdichtete, schief von vorn und aussen nach hinten und innen liegende breite braune Querbinde; die Flügelspitze ist wasserhell [the entire wing surface up to the pterostigma is intensely yellow-tinged; bordering the inner edge of the pterostigma is a broad brown transverse band, thickened by a patchy brown border around the veins, extending obliquely from the front and outside to the back and inside; the wing tip is water-clear]."

pollinosum, *Orthetrum* 1899b: 372 = ***Nesciothemis farinosa*** (Förster, 1898b: 169) [*Orthetrum*]

L. *pollen* (stem *pollin*–) = fine flour, mill-dust + suffix –osus –a –um = full of, abounding in / remarkable by

The pruinosity of Karsch's ♂ type specimen has led to the name: "Vorwiegend dunkel-braun, zum Theil hellblau bereift [Predominantly dark brown, partly light blue pruinosity]." The species had been described by Förster a year earlier named with the Latin adjective *farinosus* –a –um (= floury, mealy) pointing to the same feature, which is described as "blauweisse Bereifung [bluish-white pruinosity]" (see Fliedner 2025: 40).

ponderosa, *Erythrodiplax* 1891h: 113 = ***Erythrodiplax abjecta*** (Rambur, 1842: 83)

L. *ponderosus* –a –um = of great weight, weighty, heavy, ponderous / significant

Karsch did not provide an explanation for this name. His only ♂ specimen cannot have been especially weighty, but I see nothing significant in his description. The species had already been described by Rambur under the name *abjecta* [L. = low, common, mean], which might point to the similarity with *Sympetrum vulgatum* (= common S.), which Rambur mentions, by a roughly synonymous denomination.

pretiosa, *Pseudomacromia* 1891c: 74 = ***Zygonyx speciosus*** (Karsch, 1891c: 74)

L. *pretiosus* –a –um = of great value, costly, precious

The reason for Karsch's choice of name might be seen from the remark (p. 75): "Nur ein

einziges ♀ dieser prächtigen Art von der Barombi-Station [Only one single ♀ of this magnificent species from the Barombi Station]." Due to a difference in wing venation Karsch did not see that his specimen was the ♀ of the species he described before from a ♂ from the same place under a different name (see *speciosus* p. 65).

preussi, *Neodythemis* (1891c: 80)

The description of this species is found in a paper titled "Uebersicht der von Herrn Dr. Paul Preuss in Deutsch-Westafrika 1890 gesammelten Odonaten [Overview of the odonates collected by Dr. Paul Preuss in German West Africa in 1890]." In the preface (p. 65), Karsch lists the results of Preuss's dragonfly collecting there and mentions earlier publications based on specimens he collected. But there are further publications by Karsch about Lepidoptera, Orthoptera and other insects collected by Preuss. The eponym, Paul Preuss (1861-1926) was a German naturalist, mainly botanist and horticulturist, born in Thorn (then Kingdom Prussia, now Toruń, Poland), studied at Königsberg and Berlin. In 1886 he undertook an expedition to West Africa, first to Sierra Leone, from there to Cameroon, then a German colony, where he carried out botanical explorations and also collected zoological material, which he sent to Berlin. After his return to Berlin in 1889 in 1890 he was sent back to Cameroon and he temporarily headed the Barombi research station. From 1891 he expanded the botanical garden of Victoria (today Limbe) to include an experimental plantation for well-known crops from the old and the new worlds. During his time in Cameroon, he was also involved in military expeditions, but his main interest was to ensure productive plantations. In this context in 1889-1890 he undertook an expedition to Central and South America, from which he again sent natural history material to Berlin. Another expedition took him to Sri Lanka, Java and the German colony in New Guinea from 1903 to 1904. From 1905 on until the end of World War I he became one of the two directors of the New Guinea Company, whose goal was the expansion of German colonial possessions in Southeast Asia and their economic exploitation. In this position, he promoted the cultivation of sisal and cocoa there. In addition to the two dragonfly species, one plant genus, ten plant species, six bird species, three mammal species, and one genus each of amphibians and reptiles are also dedicated to him (cf. Beolens 2018: 337).

proavita, *Idomacromia* 1896b: 20

L. *proavitus* –a –um = ancestral, inherited from forefathers

Karsch did not provide a reason for his choice of name for this species, on which he based his libellulid genus *Idomacromia*. So hesitantly I offer this explanation: at Karsch's time, the libellulids were considered the most advanced dragonfly family. Thus, a libellulid that could be mistaken for a *Macromia*, which was not at the same evolutionary level, probably seemed archaic.

pruinata, *Trithemis* 1899b: 369

L. *pruina* = hoar-frost, rime + suffix -atus –a –um = having ..., marked with ...

The name refers to the pruinosity of thorax and femora in the males of this species, of which females were not known then: "Brustkorb dunkel-blau bereift. Beine schwarz, Schenkel blau bereift. Hinterleib schwarz [Thorax dark blue pruinose. Legs black, femora blue pruinose.

Abdomen black]. That the abdomen in mature males may be covered in pruinosity apparently was not known to Karsch.

***pumila*, *Gynothemis* (1890b: 368)**

L. pumilus –a –um = dwarfish, diminutive, little

In the key p. 364 the taxon is characterized as "Kleine Art von höchstens 25 mill. Körperlänge und 45 mill. Flügelspannung [Small species with a maximum body length of 25 millimeters and a wingspan of 45 millimeters]."

regalis, *Compsothemis* 1889e: 276 = ***Rhyothemis cognata*** (Rambur, 1842: 41)

L. regalis –is –e = royal, worthy of a king, regal, splendid

Perhaps the multicolored appearance of Karsch's single female specimen led to the name. The specimen is described as "schwarzgrün [blackish green]," but the face and the mouthparts are yellow, forehead, vertex and occipital triangle metallic blue, the thorax shiny metallic covered with fairly long yellow-red hairs, the legs are black and the all the wings black-brown from the base beyond the nodus. But in one of his next publications (1890b: 352) Karsch had come to the conclusion that his taxon was synonymous with *Rhyothemis cognata* (Rambur), the name of which (*L. cognatus* –a –um = related, by birth/position, kindred / having affinity with) was due to this similarity: "ressemblant à la *Disparata* [resembling the *Disparata* (= *Rh. semihyalina* (Desjardins, 1832))]."

***selysi*, *Chlorocypha* (1899a: 165)**

The name came about as follows: Karsch saw an error in a publication by Selys (1879a: 382), that might have required renaming the taxon: "Bemerkung: In de Selys Beschreibung seiner *Libellago curta* von 1879 wird der Charakter „Lèvre supérieure et devant de l'épistome jaunâtres" in der That neu eingeführt, da die früheren Beschreibungen nichts davon enthalten; sollte daher eine Umtaufung der Arten für erforderlich gehalten werden, so könnte *Libellago curta* Selys 1879 fortan *L. selysi* heißen [Note: In de Selys's description of his *Libellago curta* from 1879, the character "Lèvre supérieure et devant de l'épistome jaunâtres [Upper lip and front of the epistome yellowish]" is indeed newly introduced, since the earlier descriptions do not contain any of it; should a renaming of the species therefore be considered necessary, *Libellago curta* Selys 1879 could henceforth be called *L. selysi*]." About the eponym see Beolens 2018: 377-379; Fliedner & Endersby 2019: 71.

semiaurea, *Nannothemis* 1889d: 258 = ***Fylgia amazonica*** Kirby, 1889a: 344

L. semi- = half + *aureus* –a –um = golden

Hagen (1867a: 90) had mentioned a Brazilian taxon from the Berlin museum under the name *semiaurea* without any description. Karsch undertook to complete this task on the base of the single female specimen kept at his museum. From his description is clear what made Hagen chose this name: "Hinterleib ... 1. bis 5. Segment dunkel rothbraun, 6., 7. und 8. (dieses zum Theil und die Endsegmente völlig zerstört) goldgelb glänzend [Abdomen ... 1st to 5th segments dark reddish-brown, 6th, 7th and 8th (the latter partially and the terminal segments completely destroyed) shining golden-yellow]."

But half a year earlier Kirby had already described this species as *Fylgia amazonica* [L. pertaining to the Amazon River] from specimens caught at Para, a Brazilian state at

the river, after which the species was named, mentioning in his description: "Abdomen with segments 1-5 black, the remainder red (or by abrasion golden yellow)," and added: "I suspect that this insect is *Nannophya semiaurea*, Hag. MS; but as this name is inappropriate, being apparently founded on abraded specimens, I have not thought it necessary to adopt it, as no description has been published."

serrulatum, *Pseudagrion* 1894b: 16

L. *serrulatus* –a –um = serrated (*serrula* = a little saw)

The name refers to a characteristic feature by which this taxon is distinguished from related species, "dass der Hinterrand des 8. Abdominalringes auf dem Rücken eine sägeartige Bewehrung mit kleineren, der des 9. mit grösseren feinen, spitzen, schwarzen Zähnen, deren sich je 8 deutlich unterscheiden lassen, zeigt [that the posterior edge of the 8th abdominal ring on the back shows a saw-like armor with smaller, and that of the 9th with larger, fine, pointed, black teeth, eight of which can be clearly distinguished]."

serrulatus, *Paragomphus* (1898a: 344)

L. *serrulatus* –a –um = serrated (*serrula* = a little saw)

In this case the name giving serrate structure is found at the occiput (p. 345): "Scheitel am Hinterkopfe jederseits mit sägeartigem Kamme schwarzer Zähnen [Vertex at the back of the head on each side with a saw-like comb of black teeth]."

sikkima, *Gynacanthaeschna* (1891g: 311)

mod. L. *Sikkimus* –a –um = from Sikkim

The species was described "Nach einem ♀ von Sikkim durch die Firma Staudinger im Berliner Museum [After a ♀ from Sikkim by the firm Staudinger in the Berlin Museum]."

simplicia, *Heliaeschna* (1891f: 282)

L. *simplex* (stem *simplic*–) = simple, single, plain + feminine form of the suffix –ius –ia –ium = pertaining to

The form *simplicia* correctly would be nominative plural in neuter, which cannot be correct for a species name, which in nominative must be singular. So presumably Karsch, against grammatical rules, wanted to show the feminine gender intended for the species, as in singular *simplex* has only one form for all three genders. The name probably refers to this feature: "nur eine Zellenreihe zwischen den beiden Sektoren des Dreiecks im Hinterflügel [only a single row of cells between the two sectors of the triangle in the hind-wing]." The species was described in the genus *Amphiaeschna*, which is now restricted to one species. But Karsch already states (p. 283): "Diese neue Art könnte als eine *Heliaeschna* Selys mit 4 (statt 2) Spitzen am 10. Ventralsegment des ♀ und als eine *Tetracanthagyna* Selys mit geädertem Basalraum aufgefasst werden [This new species could be considered a *Heliaeschna* Selys with 4 (instead of 2) points on the 10th ventral segment of the ♀ and a *Tetracanthagyna* Selys with a veined basal space]." A more detailed description of the species is given in Karsch 1891g: 309.

singularis, *Mesocnemis* 1891c: 67 (Fig. 26)

L. *singularis* –is –e = alone, single, solitary, singular

The description of this taxon, which was established as the only species in Karsch's genus *Mesocnemis*, offers no explanation for the name. But as the first feature of the genus itself



Fig. 26: *Mesocnemis singularis* ♂ Botswana 2010 © J. Kipping. The single cell outside the pterostigma is more easily recognized in fig. 7a, p. 26.

is given as characteristic (p. 66): "Pterostigma klein, hinter ihm eine Zelle [Pterostigma small, behind it a single cell]."

***speciosus*, *Zygonyx* (1891c: 74)**

L. *speciosus* –a –um = good-looking, showy, handsome, beautiful, splendid, brilliant

The name probably refers to the multicolored appearance of Karsch's single male specimen (for the female see *pretiosa* p. 61). Its head, thorax and legs are described as "gelbbraun [yellowish brown]," the frons above as "metallisch blau [metallic blue]," the mesothorax above as black, having before the root of the anterior wings a light yellow transverse band, the abdomen is black, but the anterior halves of segments 4 and 7 again light yellow. Also, the intense black-brown markings from the base of the hindwings up to the basal median transverse vein contribute to the conspicuous appearance of the taxon, which probably is the basis of the name.

***spinosus*, *Notogomphus* (1890d: 381)**

L. *spinosus* –a –um = full of thorns, thorny, prickly, bristling

Spines at the hind femora have led to the name (p. 381-382): "♂ ... Hinterschenkel bis zur Mitte des 2. Abdominalsegments reichend, unten aussen mit 3–4 sehr langen Stacheln. ... ♀ ... Hinterschenkel bis zum Ende des 2. Abdominalsegmentes reichend, unten aussen mit 5 sehr langen Stacheln ["♂ ... hind femora reaching to the middle of the 2nd abdominal segment, with 3-4 very long spines on the lower outer side. ... ♀ ... hind femora reaching to the end of the 2nd abdominal segment, with 5 very long spines on the lower outer side]."

stuhlmanni, *Nepogomphoides* (1899b: 376)

The species is named after the collector of the ♀ type specimen, Franz Stuhlmann (1853-1928). After completing his studies in natural sciences with a focus on in the spring of 1888, he embarked on a natural history research expedition to East Africa, which led him as far as Ruanda and Lake Albert. In 1892 he returned to Germany, but in 1893 was engaged by the German administration for various tasks in East Africa, including further geographical exploring, ethnological and natural history research. In 1901 he visited British India, Sri Lanka, Singapore and Java, where he familiarized himself with plantation management, among other things, in preparation for his directorship of the Agricultural Institute in the Usambara Mountains from 1903. In 1908, for health reasons, he finally returned to Germany, where he was involved in the training of colonial officials until his retirement in 1910. In 1921, he returned to work as director of the Hamburg Institute of International Economics, a position he held until his death. After him are also named plants, birds, mammals, a reptile and an amphibian (cf. Beolens 2018: 400).



Fig. 27: *Pseudagrion sublacteum* ♂ Botswana 2005 © J. Kipping. The species described from Togo occurs as three subspecies from Morocco and the Levante to the Comores, South Africa and Namibia.

sublacteum, *Pseudagrion* (1893a: 40) (Fig. 27)

L. prefix *sub-* = under / not quite, slightly + *lacteus* –a –um = of milk, milky

This species, which Karsch described from a single ♀ from Togo, received its name due to this feature: "Flügel etwas milchig getrübt [Wings somewhat milky clouded]."

tenuis, *Macrothemis* 1890b: 364 (nec Hagen, 1868) = ***Macrothemis marmorata*** Hagen 1868: 286

L. *tenuis* –is –e = meagre, slim, thin, lank, slender

Karsch took his specimens from Theresopolis, Brazil, to pertain to *Macrothemis tenuis* Hagen, about which he states (p. 363): "Die *Macrothemis*-Arten *tenuis* Hagen, *marmorata* Hagen, *cephyra* Selys und *columbiana* Selys sind nirgends genauer beschrieben [The *Macrothemis* species *tenuis* Hagen, *marmorata* Hagen, *cephyra* Selys and *columbiana*

Selys are not described in detail anywhere].” In his key he gives as one character: “Hinterleib auffallend dünn und lang, etwas länger als der Hinterflügel [Abdomen strikingly thin and long, slightly longer than the hind wing].” But Karsch was mistaken, as he had overlooked that the species *M. tenuis* and *M. marmorata* from Brazil, mentioned as *nomina nuda* in Hagen 1861: 317, had been described in detail in Hagen 1868: 286-287 when establishing the genus *Macrothemis* in a publication mainly focused on Odonata from Cuba. So he could not see that his specimens pertained to Hagen's *M. marmorata* [L. = marbled, overlaid with marmor]. Such a feature is mentioned by Hagen only in the description of his species *M. tenuis* (p. 286): “Thorax ... Seiten bläulichweiss, mit Schwarz und Milchweiss unregelmässig marmorirt [Thorax ... sides bluish white, irregularly marbled with black and milk white],” while he states for *marmorata*: “Der *M. tenuis* sehr ähnlich; ... Thorax oben wie bei *M. tenuis*; seitlich mit drei weissen Fleckenbinden, die durch zwei braune Binden getrennt werden [Very similar to *M. tenuis*; ... Thorax above as in *M. tenuis*; laterally with three white bands of spots separated by two brown bands].” Karsch's error, which was corrected by Ris (1913a: 872), might be understood as well.

tibiata, *Gynacantha* 1891h: 121

L. *tibia* = shin-bone, tibia, shin, leg + suffix *-atus -a -um* = having ..., marked with ...

The name probably refers to the coloration of the legs: “Beine schwarz, die Hüften und Schenkelringe nebst der äussersten Spitze der Schenkel, der Oberseite der Schienen der vier Hinterbeine und dem Tarsenendglied der Mittelbeine auf der Mitte gelb [Legs black, the coxae and trochanters together with the outermost tip of the femora, the upper side of the tibiae of the four hind legs and the tarsus of the middle legs on the middle yellow].”

trifaria, *Chlorocypha* (1899b: 378)

L. *trifarius* = of three sorts or ways, threefold, triple

Karsch did not provide an explanation, but the name might refer to the tricolored Pterostigma: “Pterostigma braun, schwarz gerandet, auf der Spitzenhälfte mit grossem gelbem Wischfleck [Pterostigma brown, with black margins and a large yellow smudge on the tip half].”

uncifer, *Lestes* 1899b: 381 (Fig. 28)

L. *uncus* = a hook, barb + *-fer -fera -ferum* = bearing ...

The name refers to the tips of the superior appendages (p. 382): “Die oberen Analanhänge sind sehr lang, vorn klaffend, hinter der Mitte zusammengeneigt, ihr Spitzendrittel herabgebogen, ... [The upper anal appendages are very long, gaping in front, bent together behind the middle, their apex third bent downwards ...].”

venusta, *Sapho* 1889a: 233

= ***Sapho orichalcea*** McLachlan, 1869: 27

L. *venustus -a -um* = charming, pleasing, winning, agreeable, beautiful

This is the first odonate described by Karsch, characterized by him as “eine der *S. orichalcea* im weiblichen Geschlechte ähnliche, noch unbeschriebene Art aus Afrika, leider ohne nähere Angabe des Fundorts und in nur einem einzigen Exemplare [a species from Africa similar to *S. orichalcea* in the female gender, still undescribed, unfortunately without further details of the location and in only one single specimen].” The name chosen by Karsch is an example of the names referring to charming femininity, like



Fig. 28: *Lestes uncifer* ♂ Zambia 2014 © J. Kipping. The hook shaped cerci, which are the bases of the name, are to be seen well.

Linnaeus' names *virgo* or *puella*, for the Latin word is derived from Venus, the name of the Roman goddess of charm and love. But Karsch's specimen was not only similar to *S. orichalcea*, it was one. McLachlan had named the species *orichalcea* [L. made of brass, brass colored] in reference to the glossy wings of the males: "Alae ... in ♂ adulto nigrae, opacae, orichalceo-micantes ... in ♂ immaturo fuliginoso-sub-hyalinae, orichalceo-micantes" [The wings ... in the adult ♂ black, opaque, glittering like brass ... in the immature ♂ sooty subhyaline, glittering like brass]."

***versuta*, *Hadrothemis* (1891b: 61)**

L. versutus –a –um = adroit, dexterous, versatile; shrewd, clever, ingenious /wily, sly, deceitful

It is difficult to provide an explanation for this name, because the Latin word has so many meanings. I think the denomination might have been chosen in the sense 'deceitful', as in the beginning of his description Karsch says: "Sehr ähnlich der Vorigen [Very similar to the previous one {= *H. defecta*, see p. 37}], and near its end he states: "Diese Art scheint dem *Orthetrum camarensis* Kirby sehr ähnlich zu sein [This species appears to be very similar to *Orthetrum camarensis* Kirby]." So the possibility for this species to be mistaken might have led to the name.

***vesiculata*, *Gynacantha* 1891g: 307**

L. vesicula = a little blister, vesicle + suffix –atus –a –um = having ..., marked with ...

The name refers to this feature of Karsch's single male specimen (p. 308): "Hinterleib des ♂ am Grunde nur wenig blasig [Abdomen of the male only slightly vesicular at the base]."

Actual Genera

Africocypha Pinhey, 1961: 26

L. *Africa* = Africa + *-cypha* as a reference to the genus *Chlorocypha* (see p. 71)

Pinhey separated this taxon based on differences in the male appendages as a subgenus of *Chlorocypha*, but it has now been elevated to generic status. Pinhey based this genus on two synonyms of *A. lacuselephantum* Karsch, a species with several color variations in the males. As the genus *Chlorocypha* itself is restricted to Africa and the genus *Africocypha* is only known from Cameroon, Nigeria and Gabon the name is not very enlightening.

Agriocnemis Selys, 1877: 134, 142

For *Agrion* see *Neuragrion* p. 28; for *-cnemis* see *Alloccnemis* p. 69–70

To understand this name well we must look at the development of Selys' systematics of Odonata. He upgraded Fabricius' three genera (*Libellula*, *Aeshna* and *Agrion*) to familial status, and he separated the Agrionidae into two subfamilies, the Caloperygines and the Agrionines. These he subdivided gradually into 'divisions', 'légions', genera and subgenera, into which species were placed. In 1863 in his 'Légion *Platycnemis*' he introduced some genera with names ending in *-cnemis* as a reference to them being related to the genus *Platycnemis* Burmeister [Gr. πλατύς (platys) = broad + κνημῖς [knēmīs] = greave, legging in reference to the broadened tibiae]. Later he realized that not all of these pertained to the Platycnemidae. In 1877 he established the genus *Argiocnemis* with the two subgenera *Argiocnemis* and *Agriocnemis* according to their nearness to the genera *Argia* and *Agrion* (today's *Coenagrion*). These new subgenera, which later were elevated to generic rank, were already mentioned in Selys 1872 as *nomina nuda*. The element *-cnemis* finds its explanation in Selys 1877, 135: "Précédemment j'avais pensé que les *Argiocnemis* devaient se placer à la suite de la légion du *Platycnemis* à cause de leur quadrilatère presque régulier [Previously I had thought that the *Argiocnemis* should be placed after the Légion *Platycnemis* because of their almost regular quadrilateral]," meaning that he did not want to include them into Platycnemidae.

Agyrtacantha Lieftinck, 1937:56, 59

Gr. ἀγύρτης [agyrṓs] = vagabond; for *-acantha* see *Gynacantha* p. 73

Martin (1908b: 8; 1909a: 154+155) had adopted Förster's genus *Plattycantha*, correcting its name to *Plat(t)acantha* and splitting a genus *Cornacantha* from it, which he based on Förster's species *P. cornuta*, which Förster himself had declared to be type species of his genus *Plattycantha*. So Martin's taxon was a junior synonym and his *Platacantha* had to be replaced as a homonym of Förster's genus (cf. Cowley 1934a: 246). To overcome this difficulty Lieftinck substituted with *Agyrtacantha*. While the second part of that name obviously is a reference to *Gynacantha* (as in the names by Förster and Martin), its first element most probably refers to the range of the species of this genus in comparison to those of the genus *Plattycantha*, which – according to Lieftinck 1937: 65 – "being confined to the higher mountain zone of New Guinea ... have a more spotted distribution than the species of *Gynacantha* or *Agyrtacantha*."

Alloccnemis Selys, 1863: 173

Gr. ἄλλος –η –ον [állos] = other, another + κνημῖς [knēmīs] = greave, legging as a re-

ference to the genus *Platycnemis* (= broad greave, because of the widened tibiae)

Allocnemis was described as a 'sous-genre' among others with *-cnemis* as second element of their names in a publication intended by Selys to cover all the taxa closely related to genus *Platycnemis*. It was distinguished from the others by this feature (p. 174): "Ils se séparent ... des autres sous-genres précédents par les ailes plus petiolées [They are separated from the other aforementioned subgenera by the more petiolate wings]." The name means: "Another platycnemidid taxon". But as it later turned out that not all those taxa pertained to Platycnemididae, the element *-cnemis* just as well may mean 'Coenagrionid damselfly' (cf *Agriocnemis* p. 69).

Archineura Kirby, 1894a: 84

Gr. ἀρχή [archē] = beginning, origin + νευρον [neuron] = sinew, tendon [in entomology: wing vein]

As usual, Kirby does not give an explanation for his choice of the name. But the morpheme *Archi-* in odonatological nomenclature is often used in an evolutionary sense. In *Archineura* the very dense reticulation at the wing base might have been seen as an archaic character of the wing venation (see Hämäläinen & Fliedner 2022: 27).

Brachydiplax Brauer, 1868a: 172

Gr. βραχύς [brachys] = short + *-diplax* (see below)

In 1840 (p. 12) Charpentier had established a libellulid genus named *Diplax* which name he explained thus: "Nomen e Graecis vocabulis δις et πλάξ derivatum ob prothoracis formam. ... Prothorax in postica parte elevatus vel erectus in plagulam vel discum a duobus semicirculis formatum [The name is derived from the Greek words dis (= twice, doubly) and plax (= anything flat and broad) because of the shape of the prothorax. ... The prothorax is elevated or erect in its hind part into a little area or disk formed by two semicircles]." The name refers to the posterior lobe of the prothorax, which is formed similar to the upper-case letter B. But the name *Diplax* was a junior synonym of *Sympetrum* Newman, 1833, which until about 1880, however, was not commonly known, as *Diplax* was considered to be the correct name (see Hagen 1888). So in 1868 Brauer, when he had to describe many libellulids, established five genera with names ending in *-diplax*, among these *Brachydiplax*, for which he stated in his description [1868a: 173]: "Hinterleib kurz, dreiseitig, am Grunde etwas dicker [Abdomen short, trilateral, somewhat thicker at the base]"

Brechmorhoga Kirby, 1894b: 264

Gr. βρέχμα [brechma] = front part of the head + ῥωγή [rhōgē] = cleft.

This genus is distinguished from the genus *Macrothemis* by this feature: "frontal tubercle bifid."

Camacinia Kirby, 1889a: 260, 266

Gr. καμάκινος [kamakinos] = made of reed or similar material + feminine form of the suffix *-ιος* [-ios] = belonging to

The name might pertain to the abdomen, which is described as "stout, not thickened at the base, the sides nearly parallel" (p. 266), by which feature the genus is isolated together with *Belonia* from other genera in the key on p. 260. The Gr. adjective kamakinos has a common form for masculine and feminine; so the feminine adjectival suffix might

have been added to avoid a change in gender from *Neurothemis*, from which the new genus was split.

***Chlorocypha* Fraser, 1928: 684**

Gr. χλωρός –ά –όν [chlōros] = greenish-yellow, pale green + –*cypha* as a reference to the genus *Rhinocypha* (see below)

By this name Fraser settled a problem in odonatological nomenclature. Selys (1840: 200) had established the genus *Libellago* [= showing the characteristics of a *Libellula*, see Fliedner 2021a: 109] citing *Calopteryx lineata* Burmeister as the first species of his new genus; Rambur (1842: 238) chose this very species to base his genus *Micromerus* on [from Gr. μικρός [mikros] = small and μέρος [meros] = part, probably as a reference to 'Abdomen notablement plus court que les ailes [Abdomen noticeably shorter than the wings]]', creating a junior synonym of the Selysian species. However, this classification was adopted by Selys in his Synopsis des Caloptérygines, who instead made *Libellula dispar* Palisot de Beauvais the type species of *Libellago*, which was not originally included in that genus (cf Cowley 1934a: 243). Hence Fraser saw that it was necessary to take action "to rectify these errors *Micromerus* becoming *Libellago* and a new name chosen for the latter, for which I would suggest *Chlorocypha*." Fraser did not explain that name, the first element of which might refer to the striking yellow or greenish markings on the thorax, which were found in almost all species of the new genus at the time of its naming. This feature is also present in almost all species described since then (the explanation in Fliedner 2023: 62 is erroneously based on Fraser's key, which refers only to the abdomen of Indian species and therefore cannot apply to a genus found exclusively in Africa). The second element however is clearly a reference to the nearly related genus *Rhinocypha* (Rambur, 1842: 232) [from Gr. ρίς (stem ρίν– [rhin–]) = nose + κυφός [kyphos] = bent forwards, hunchbacked] named in reference to the protruding clypeus of all its species: "épistome fortement renflé et saillant [epistome strongly bulging and protruding]." This feature is also found in other related genera which are now grouped together in the family Chlorocyphidae. Thus, in odonatological nomenclature the morpheme –*cypha* generally means 'chlorocyphid dragonfly genus'.

***Crocothemis* Brauer, 1868b: 367 & d: 736 (Fig. 29)**

Gr. κρόκος [krokos] = saffron; for –*themis* = libellulid dragonfly see p. 19 s.v. *Apatelia*

In the first description neither the name nor the feature to which it might refer is explained, but in all species included by Brauer in the new genus, large saffron coloured basal patches are found (cf. Fliedner 1997: 40).

***Diplacodes* Kirby, 1889a: 263, 307**

For *Diplax* see *Brachydiplox* p. 70 + –ώδης = looking like, resembling

Charpentier (1840: 12) had introduced a libellulid genus *Diplox* in reference to the shape of its prothorax not being aware, that it was a junior synonym of *Sympetrum* Newman, 1833, as were most odonatologists until McLachlan revived that name (see Hagen 1888, Fliedner 2021a: 117). The genus *Diplacodes* (= looking like a *Diplox*) was established by Kirby when he dealt with the genus *Diplacina* [= related to *Diplox*] Brauer, 1868 with the remark: "This genus will include all the species placed in *Diplacina* by Brauer, except



Fig. 29: *Crocothemis divisa* ♂ Zambia 2011 © J. Kipping. For this species Karsch mentions that, unlike in *C. erythraea*, hardly any yellow patches are found at the base of the hind wings in both sexes (1898a: 342).

his type, *D. nana*, from the Philippines, which is clearly not congeneric with the others. Several species previously referred to *Diplax* will come better here ...”

***Disparoneura* Selys, 1860: 443**

L. dispar = unequal, disparate, unlike; for *-neura* see *Atoconeura* p. 21

The taxon, which was introduced by Selys as a subgenus of *Alloneura*, differs from its other subgenera thus: “Secteurs de l’arcus naissant séparées [Sectors of the arcus arising separately].” For more about the difficulties with the Selysian genus *Alloneura* and its subgenera see *Prodasineura* (p. 78).

***Erythrodiplax* Brauer, 1868b: 368 & d: 722**

Gr. ἐρυθρός [erythros] = red; for *-diplax* ≈ libellulid dragonfly see *Brachydiplax* p. 70

Brauer erected this genus based on wing venation characters. Of the nine taxa originally included, of which two were later determined to be junior synonyms, not a single one is described as truly red. But for three of them a red shade is mentioned in their first description, namely *fusciorufa* (= reddish brown) and twice *flavorufescens* (=reddish yellow). So that might have prompted Brauer to his choice of name.

***Euthore* Selys, 1869a: 668, 675**

Gr. εὖ [eu] = well; in nomenclature often for ‘typical’ or ‘advanced’ (in an evolutionary sense); for *Thore* see below

In his Synopsis des Caloptérygines Selys introduced “legion”, a “genre” and a “sous-genre”

Thore, which he credits to Hagen. That name is somewhat enigmatic, for the rare Greek word *θορή* (*thorē* = male or animal semen) does not harmonize with the other new genus-group names in that publication, which mostly refer to female charm. So I suppose that the name is taken from a 19th century novel, where alleged antique names are found (like that of the flower girl Nydia in Bulwer's *Last Days of Pompeii*). A derivation from the Norse male name *Thore* ($\approx$ Thor's warrior) is not probable, as the generic name from the outset was used feminine. From his more extensive description of that "legion" is to be seen, that Selys assesses it as a link to the evolutionary more advanced Agrionines (1854a: 247): "cette Légion n'a pas d'affinité avec aucune autre des Caloptérygines. Nous connaissons, au contraire, parmi les Agrionines fossiles, des espèces qui se rapprochent des Thore ... [this legion has no affinity to another one of the Calopterygines. On the contrary among the fossil Agrionines we know species which verge on the taxa of *Thore* ...]." When establishing the taxon *Euthore* as a subgenus (1869a: 675) he explains, that differing from *Thore* two of the antecubital veins are formed more strongly than the others, which seems to him a transitional stage to the two antecubitals in the Agrionines, so that the new taxon is more advanced in evolution.

As the name *Thore* was preoccupied by a genus of spiders it was replaced by Calvert (1917: 263) with *Polythore*, Greek *πολύς* [*polys* = many] being a reference that in this taxon the cells of the wings are more numerous than in *Calopteryx*.

Fylgia Kirby, 1889a: 259, 312

Old Norse: *fylgja* = to follow, to accompany

As usual Kirby does not give any explanation for his choice of name, but it seems unambiguous, that the polyglot scientist took it from Old Norse, as in the key p. 259 the name after the next one is *Fylla* [Old Norse = to fill, to complete], a junior synonym of *Nannophya*. Why Kirby selected names in this unusual language and what he intended to mean with them is not clear. Probably it was difficult to find suitable expressions in Latin or Greek; perhaps they convey a similar meaning to the pair of names *acolythus* and *proselythus* (see Endersby & Fliedner 2015: 95 + 204). Certainly, it catches one's attention that *Fylla* is the last genus treated by Kirby in that publication, thus completing his survey. Thus, *Fylgia* could be intended to indicate the proximity to the genus *Nannodiplax*, which is described directly before (p. 312), or rather to *Nannothemis*, which immediately follows in the key (p. 259) and in the description. But this is a mere guess.

Gynacantha Rambur, 1842: 209

Gr. *γυνή* [*gynē*] = woman, female + *ἄκανθα* [*akantha*] = thorn, prickle

Rambur named the genus in reference to the spines beneath the tenth abdominal segment of the females, by which the taxon was distinguished from *Anax* and *Aeshna*. Selys 1883: 744 split this genus into subgenera according to the number of the spines, *Tetracanthagyna* with four spines, *Triacanthagyna* with three spines, *Gynacantha* and *Heliaeschna* with two spines, which however later all were elevated to generic rank.

Gynacanthaeschna Fraser, 1921: 108

For *Gynacantha* see foregoing entry; for *Aeschna* see *Hoplonaeschna* p. 23

Fraser introduced the genus to place *Cephalaeschna sikkima* Karsch, which he did not find properly placed there: "Karsch in 1891 taking the development of the frons as

the most important feature described *Cephalaeschna sikkima*. In this species the dentigerous plate of the female is forked very much the same as is found in species belonging to *Gynacantha* so that it clearly cannot be placed in the genus *Cephalaeschna* and for a similar reason it falls outside characters attributed to *Caliaeschna*. Thus it is seen, that *Cephalaeschna* must be retained and a new genus must be erected to contain Karsch's species, and others resembling it."

Gynothemis Calvert, 1909: 256

Gr. γυνή [gynē] = woman, female; for *-themis* = libellulid dragonfly see p. 19 s.v. *Apatelia*

Calvert explains his choice of name in a footnote: "This proposed name refers to the fact that the genus, although similar in many ways to *Macrothemis*, differs, among others, in that the male femora are armed like those of female *Macrothemis*."

Heliaeschna Selys, 1882: 667

Gr. ἑλικες [helikes] = forked tendrils of the vine; for *Aeschna* see *Hoplonaeschna* p. 23

Most probably this feature of the females has led to the name: "♀ Le 10e segment prolongé en dessous en une plaque fourchue procombante, à branches fines, longues, aiguës, écartés [♀ 10th segment elongated into a prominent forked plate with fine, long, pointed, splayed branches]".

Hylaeothemis Ris, 1909: 19 + 63

Gr. ὑλαῖος [hylaîos] = belonging to the wood; for *-themis* = libellulid dragonfly see p. 19 s.v. *Apatelia*

What made Ris choose this name is not explained in the first description itself, but it is to be seen from a remark after the description of the new species *H. clementia* (p. 64): "Wahrscheinlich sind aus der Gruppe dieser archaischen, zartgebauten, schwarzgelben Waldformen noch manche heute unbekannte Vertreter aus den Tropen der alten Welt zu erwarten [Probably a number of so far unknown representatives from this group of archaic delicately built black and yellow forest dwelling dragonflies are to be expected from the Old World's tropics]."

Idionyx Hagen, 1867c: 62

Gr. ἴδιος [idios] = one's own; a peculiar kind of + ὄνυξ [onyx] = talon, claw

This genus came into existence by an announcement, that two genera would be described by Selys which were peculiar by their claws, which were similar to that of the genus *Macromia*, which had been described by Rambur (1842: 137) as "fortement bifides [strongly bifid]", *Zygonyx* (see p. 80) and *Idionyx*. The latter one was placed by Selys (1871: 519) in his 'légion Macromia', but in Paulson et al. 2025 it is placed in a distinct family erected by Tillyard.

Lestes Leach, 1815: 137

Gr. ληστής [lēstēs] = robber; the Latinised form *Lestes* is accentuated on the first syllable

Leach did not explain why he chose this name for his new genus and it does not provide any diagnostic characters, as all Odonata are predators (for more see Hämäläinen & Fliedner 2023).

Libellago Selys, 1840: 200

In establishing this genus, Selys did not choose a Latin word, but formed the name from Latin elements, *libell*– derived from *libell(ul)a*, combined with –ago, which we find e.g. in *virago* [L. = heroine], which means “with the characteristics of a man [L. *vir*]”. Selys saw in this calopterygid genus some resemblance to “certain Libellules [certain *Libellulæ*]” because one could find “à la rigueur [at a pinch]” some sort of discoidal triangle in their wings (for further information on the genus see *Chlorocypha* p. 71)

Libellula Linnaeus, 1758: 543

L. libellula = diminutive of *libella* = (among others) archipendulum (see below).

The archipendulum was a tool of building craftsmen in antiquity and the Middle Ages in the shape of an inverted T. As a biological name, it was first used by the French naturalist Guillaume Rondelet (1505-1566) for the hammerhead shark, which he named *Libella marina* (= libella from the sea), in reference to the shape of its head. He later applied the name to a zygopteran larva, which he named *Libella fluviatilis* (= libella belonging to the rivers). Since the 17th century, the name has also been used scientifically for various dragonfly imagines. Linnaeus then used the diminutive *Libellula* to name a genus for all odonates (see Fliedner 1997: 24; Fliedner 2012; Fliedner & Endersby 2019: 175).

Limnetron Förster, 1907: 163

Gr. λίμνη [līmṇē] = pool of standing water left by the sea or a river, marshy lake + ἔτρον [ētron] = abdomen

There is no explanation of the name either in the description of the genus or in that of its single species when published. Its first part looks as if it might point to the habitat of the taxon, which, however, is a genus of streams and forests. So Förster may not have been correctly informed about that. But the combination of a habitat with a part of the body is strange. What might have induced it? According to Förster's description the genus pertains to the “Gruppe Brachytron Karsch” (1907: 166, cf. Karsch 1891f: 284; the name *Brachytron* is contracted from *Brachy-ētron* = short abdomen). So that relation may have led to the name.

Macrothemis Hagen, 1868: 281

Gr. μακρός –ά –όν = long, tall, large, great; for –*themis* = libellulid dragonfly see p. 19 s.v. *Apatelia*

One might think the name to be understood as ‘large libellulid’, but when Hagen split this genus from the genus *Dythemis* established seven years before, more than half of the species remaining in that genus were larger than any of the four species transferred to the new genus. It is separated from *Dythemis* by the peculiar form of the tarsi in the males (p. 283): “Selbe sind nämlich genau wie bei *Macromia* an der Spitze verdoppelt, d. h. der untere Zahn an die Spitze gerückt, so lang wie der obere, und an den vier Hinterfüßen sogar stärker, so dass der untere Zahn eigentlich das Ende der Tarsenkralle zu bilden scheint, und der obere gleichsam einen dünneren Anhang bildet [These are exactly the same as in *Macromia* and doubled at the tip, i.e., the lower tooth has moved to the tip and is as long as the upper tooth, and on the four hind feet it is even stronger, so that the lower tooth actually seems to form the end of the tarsal claw, and the upper tooth forms

a thinner appendage, as it were].” So the name means ‘libellulid similar to *Macromia*’ (see Fliedner & Endersby 2019: 181).

Matrona Selys, 1853: 17

Lat. *matrona* = married woman, wife, matron

In odonatological nomenclature charming femininity played a role since Linnaeus named two damselflies *virgo* (L. = maid, maiden, virgin) and *puella* (L. = girl, maiden, lass); after him D. Drury (1725-1803), for instance, had named about twenty odonates from around the world with female names, mostly from Roman antiquity. Others followed including Selys who, in his *Synopsis des Caloptérygines*, included *Matrona* as one of those names. In Roman antiquity a *matrona* was a freeborn woman married to a Roman citizen. By this she was her husband's ward and protégé and had to supervise the household and to educate their children. But she had a freer position in society, compared to the women of other peoples. For instance, unlike Greek wives, she also accompanied her husband to receptions and banquets. This was explained by the Romans by the fact that the abducted Sabine women at the time of Romulus had made peace between their relatives and their abductors, who had already won them over by treating them well (cf. Hämäläinen & Fliedner 2022: 32).

Micrathyría Kirby, 1889a: 264, 303

Gr. μικρός [micros] = small + ἄθυρος [athyros] = without door. + feminine form of the suffix –ιος [–ios] = associated with, pertaining to

The first element of the name probably refers to the small size of the type species, the second one might be a reference, that there are “no supratrangular nervures” in fore and hind wings (a reference to small cells correctly would be: *Microthyria*).

Nannodiplax Brauer, 1868b: 369; c: 556; d: 725

Gr. νᾶνος [nânos] or νάννος [nannos] = dwarf; for –*diplex* see *Brachydiplex* p. 70

This is one of the many libellulids described by Brauer in 1868; he does not give an explanation for the name, but in the key (p. 369) the genus directly follows after the genus *Diplex*, and in the detailed description of the type specimen of that genus (p. 558) the length of the abdomen is given as 23 millimetres, which certainly is rather small for a dragonfly..

Nannothemis Brauer, 1868b: 369; d: 726

Gr. νᾶνος [nânos] or νάννος [nannos] = dwarf; for –*themis* = libellulid dragonfly see p. 19 s.v. *Apatelia*

When establishing this genus Brauer did not say anything about the relative sizes of the species included in this genus, but they all are very small. Presently only *N. bella* (Uhler) remains in this genus, which is known as the smallest anisopteran of North America (cf. Fliedner & Endersby 2019: 189).

Nepogomphoides Fraser, 1952: 3

L. *nepos* = grandson / nephew + –*gomphus* = gomphid dragonfly + Latinised form of Gr. –εἶδής [–eides] = looking like ...

Fraser (1934: 282) had based his new Indian genus *Nepogomphus* on a species described by Selys (1878b:423) as *Onychogomphus modestus*. Concerning his new genus

Fraser stated (p. 284): "The genotype was considered by Selys to be closely related to *Onychogomphus saundersi*, but it and *N. walli* [a second species placed by Fraser in the new genus] are only half the size of *O. saundersi* and differ in the venation and genitalia." As the Latin word *nepos* expresses a relationship of the second grade the name of his new genus most probably is thought to say that the propinquity of the taxa is not as close as thought by Selys.

When dealing with gomphids from Africa Fraser, because of a similarity of the appendages, introduced his genus *Nepogomphoides* giving as generic characters: "Medium-sized, melanotic gomphines closely similar in general appearance to species of *Microgomphus*, and, by the anal appendages, to *Nepogomphus*, but belonging to the subfamily Epigomphinae ..."

Nesciothemis Longfield, 1955: 59

L. nescio = not to know, to be unacquainted with]; for *-themis* = libellulid dragonfly see p. 19 s.v. *Apatelia*

In the paper, where the name *Nesciothemis* is established, Longfield deals with the difficulties in identifying the different species of the genus *Orthetrum* that exhibit a large range of individual variation. Why she introduced the new genus is explained thus: (p. 14): "I have decided to place *O. farinosum* Förster in a new genus, to include also Pinhey's new species *O. fitzgeraldi*. In many ways *farinosum* is close to the genus *Hadrothemis*, where it has been included in the past, and in some ways *fitzgeraldi* is more like an *Oxythemis*. Neither of them fits into *Orthetrum* and both have sufficient characters in common to be included in the same genus." About her choice of name she says (p. 59): "The new name is a pure invention, formed from the «themis» at the end of the names of the nearest generic relations, together with the verb *nescio* - «not to know». I designate *Orthetrum farinosum* Förster as the type species of the genus." So the name might be intended to indicate the difficulty in recognizing this libellulid genus and distinguishing it from the closely related genera.

Orthemis Hagen, 1861: 160

Gr. ὀρθός [orthos] =straight; for *-themis* = libellulid dragonfly see p. 19 s.v. *Apatelia*

Hagen formed this name after the model of *Orthetrum* (see next entry; cf. Hagen 1888) without explaining what the new name should say. He based it on two species with straight abdomen from North America (*O. discolor* + *O. ferruginea*), which he thought to be synonymous and which were confused in all older literature (see Paulson 2009: 403).

Orthetrum Newman, 1833: 511

Gr. ὀρθός [orthos] =straight + ἔτρον [ētron]= abdomen

Newman had put forward a genus *Sympetrum* for libellulids with a laterally compressed abdomen in a new periodical which he had founded in the same year. In this context he mentioned that he had considered splitting three more genera from *Libellula* sensu Leach, but "that a dislike to name-giving induced me to relinquish them". As one of these he had planned a genus "Orthetrum: abdomen laterally parallel" with *Libellula coerulescens* Fabricius or *L. cancellata* Linnaeus as examples. But by this he had already given a valid description of a new genus which however according to Hagen 1888 remained nearly unnoticed until about 1880.

***Phyllomacromia* Selys, 1878a: 212**

Gr. φύλλον [phyllon] = leaf; for *Macromia* see below

Rambur (1842: 137) had established a genus *Macromia* ($\approx$ long shouldered) in reference to its humeral part of the wings: "Ailes ayant la partie humérale du bord costal au moins deux fois aussi longue que la partie cubitale jusqu'au ptérostigma [Wings with the humeral part of the costal edge at least twice as long as the cubital as far as the pterostigma]." Selys segregated from this genus the taxon *Phyllomacromia* due to this feature of the males: "Le 8e segment du male campanulé, dilaté en feuilles latérales arrondies [The 8th segment of the male campanulate, dilated into rounded lateral leaves]." He mentioned that this abdominal dilatation was similar to that of some other genera of gomphids (for instance *Ceratogomphus*, *Phyllogomphus*, *Cyclophylla* or *Ictinus*).

***Prodasineura* Cowley, 1934b: 202**

This is a replacement name to overcome a nomenclatorial problem caused by Selys. In his 'légion Protonevra' 1860 (441 & 446) he had named a "genre" and within that a "sous-genre" with the preoccupied name *Alloneura* (= differently veined) and had redefined it in 1886 (pp. 159; 176). As a remedy to these difficulties Cowley (1934b: 202-204) chose an anagram (a word formed by rearranging the letters) of another "sous-genre" of *Allo-neura* 1860 named *Disparoneura* [see p. 72], with which (according to Selys 1886: 177) *Prodasineura* has a feature of the wing venation in common.

***Pseudagrion* Selys, 1876a: 490**

Gr. ψευδ- [pseud-] = false, pretending to be; for *-agrion* see *Neuragrion* p. 28

There is no explanation for the name of this taxon, which Selys described as one of the many subgenera within his genus *Agrion* of those, in which the females lack a vulvar spine. For these he states (1876a: 1233): "Il est difficile de donner une analyse laconique des caractères principaux des douze sous-genres que j'admets dans cette seconde partie du grand genre Agrion [It's difficult to give a succinct analysis of the basic characteristics of the twelve subgenera I've included in this second part of the large *Agrion* genus]." So the name probably refers to the difficulty to distinguish this genus from other genera of this group.

***Rhinagrion* Calvert, 1913: 258**

Gr. ρίς (stem ρίν-) [rhis/ rhin-] = nose; for *-agrion* see *Neuragrion* p. 28

Calvert explains his choice of name in footnote 91: "The name *Amphilestes* Selys is preoccupied by *Amphilestes* Owen (Encyc. Brit., 8th edit., XVII, p.157, 1859) for a fossil mammal. *Rhinagrion* is suggested by de Selys' emphasis of one of the characters of his *Amphilestes* as "Tête robust, à épistome saillant [Head robust, with a protruding clypeus]".

***Rhionaeschna* Förster, 1909: 220**

Gr. ρίον [rhion] = any jutting part of a mountain, whether upwards or forwards; for *-aeshna* see *Hoplonaeschna* p. 23

The name was evoked by the prominent vertex of the single species *R. brevifrons* (Hagen): "Sehr merkwürdig ist die Bildung der Ocellenblase. Sie ist von vornher eingestülpt, so daß sie eine Art Haube bildet, unter welcher die mittelste Ocelle sitzt. Vor der Ocelle ist die Stirn mit einer kreisförmigen Mulde versehen. Gesicht etwas kugelig vorgewölbt; die

Stirn sanft nach oben und hinten gerundet, ohne Vorderkante, da die Kantenlinie fast in die Mitte der Oberseite zu liegen kommt [The formation of the vesicle near the ocelli is very remarkable. It is concave anteriorly, so that it forms some kind of hood, under which the middle ocellus is positioned. In front of the ocellus the frons has a circular depression. The face bulges somewhat forward globularly; the frons is rounded softly upwards and backwards, without an anterior edge, as the line of the edge is positioned nearly in the middle of the upper side]."

Rhyothemis Hagen, 1867b: 232

Gr. ῥυθῖναι [rhyēnai] = having flowed; for *–themis* = libellulid dragonfly see p. 19 s.v. *Apatelia*

Hagen did not give an explanation for his choice of name, which might have been inspired by geology: The differently coloured irregular patterns in the wings in that genus might have reminded him of the magmatig rock named Rhyolite by F. von Richthofen in 1861, which is interspersed with many minerals thus producing a varied patterned appearance (see Lüschen 1968: 303).

Sapho Selys, 1853: 21

Gr. Σαπφώ [Sapphō] = Greek poetess (ca 600 BC)

The Greek poetess Sappho, who lived on the island of Lesbos around the year 600, was so highly esteemed in antiquity that the philosopher Plato called her 'the tenth Muse.' Only a fraction of her work has survived, but the study of her and her work continues to the present day. By naming a genus of calopterygids after her, Selys takes up the 'feminine theme,' as he does several times in this publication. The fact that he spells the name Sapho is likely due to the fact that two operas about her premiered in Paris in the 19th century, their titles written in this way, one of which was written by the composer Charles Gounod in 1851. This may have been the inspiration for the choice of name. For more see Hämäläinen & Fliedner 2022: 36-37.

Stenocypha Dijkstra, 2013: 269

Gr. στενός [stenos] = narrow; for *–cypha* see *Chlorocypha* p. 71

Dijkstra 2013 gives as a distinguishing feature (p. 270): "The genus differs from other African Chlorocyphidae by the slender abdomen, e.g. S3 is about three times as long as wide," and he adds in his paragraph 'Etymology' about the reason for his choice of name: "The suffix *cypha*, frequently used for genera in this family {Chlorocyphidae}, is combined with the Greek prefix *Steno–* (narrow), referring to the slender abdomen and limited range of the new genus." Philologically spoken the word elements would rather not be called prefix or suffix, but morphemes.

Tauriphila Kirby, 1889a: 258, 268

Gr. Ταυρικὴ [Taurikē] = Land of the Taurians (today's Crimea) + latinized feminine form of *–φίλος* [philos] = loving /dear to

The correct interpretation of the name is given by Hämäläinen & Garrison 2020: 53: "the name surely originates from Greek mythology. Kirby (1889) designated '*Tramea iphigenia*, Hag.' [synonym of *Tauriphila australis* (Hagen, 1867{b}: 229)] as the type species of his new genus. It seems likely that the name *Tauriphila* comes from the drama 'Iphigenia among

the Taurians' (Ἰφιγένεια ἐν Ταύροις) written by Euripides between 414 BC and 412 BC. In Greek mythology Iphigenia was the daughter of King Agamemnon. The Taurians lived in the Crimean peninsula. Given the multilingual W.F. Kirby's passionate enthusiasm for mythology, on which topic he wrote several books, this seems the obvious interpretation." Hence the explanation in Fliedner & Endersby (2019: 268) is erroneous.

Trithemis Brauer, 1868a: 176 (Fig. 30)

Gr. τρι- [tri-] (in compounds) = three; for *-themis* = libellulid dragonfly see p. 19 s.v. *Apatelia*

The name was given in reference to the characteristic shape of the prothorax: "Hinterrand des Prothorax dreilappig, der Mittellappen, klein, ganz [Rear margin of the prothorax three-lobed, the median lobe being small, entire]."



Fig. 30: *Trithemis nuptialis* ♂ Zambia 2011 © J. Kipping. Upon closer inspection, the three-lobed posterior margin of the prothorax, which gave rise to the name, is discernible.

Zosteraeschna Peters & Theischinger, 2011: 241

Gr. ζωστήρ [zōstēr] = belt, girdle / anything that goes round like a girdle; for *-aeschna* see *Hoplonaeschna* p. 23

As etymology of the name is given: "The prefix "Zostera", proposed by K.-D.B. Dijkstra (in litt.), points to the ring-like ornamental ridge, crossing in both sexes abdominal tergum 2 in its middle."

Zygonyx Hagen, 1867c: 62

Gr. ζυγόν [zygon] = (properly) yoke, (metaphorically) an equal pair of + ὄνυξ [onyx] = talon, claw

In Hagen's treatise was given the advance notice that Selys establish two genera peculiar by their bifid claws, which were similar to those of *Macromia*, one of these the genus *Zygonyx*. Selys himself (1871: 520) speaks of "onglets à dents égales [claws with equal teeth]".

Conclusions

Now that the scientific names given to dragonflies by Karsch have been explained, it is appropriate to look at his preferences in naming these. In doing so, synonyms and homonyms are also considered. In the following section, percentages refer to the total number, not to proportions thereof.

Of his 33 genus group names 28 (= 84.9 %) pertain to appearance. Of these 21 (63.6 %) reflect morphology, 6 (18.2 %) refer to similarity with other taxa, one (3.0 %) each to size and to beauty, as reference to biotope and the eponymy of a collector and; furthermore there are two (6.0 %) related to types of people.

Also of his 106 species-group names most (68 = 60.4 %) reflect appearance, in which 28 (26.4 %) refer to morphology, 14 (13.3 %) to pattern, 12 (11.4 %) to coloration, 8 (=7.5 %) to similarity with other taxa, 6 (5.7 %) to beauty, two (1.9 %) to size. To people refer 19 (17.9 %) of the names, in these 9 (8.5 %) to collectors, 8 (7.5 %) to scientists or other deserving people, two are (1.9 %) from antiquity. There are nine (8.5 %) toponyms, of which one (0.95 %) is indirect and another one reflects the disjointed distribution; of the last names two (1.9 %) point to biotope, one (0.95 %) to evolution.

When we compare these values with those of other odonatologists, as shown in Fliedner 2025: 106, we must keep in mind, that Karsch's 106 species group names in odonates [in Hämäläinen's number 107 (2017: 19) the name *extranea* is incorporated erroneously, see p. 40] correspond almost exactly to those of Brauer (105) and Schmidt (109), while they are significantly exceeded by those of Ris (281) and Förster (165), while Krüger (43) had not described even half as many species.

Among the aforementioned odonatologists, with the exception of Krüger and Schmidt, where eponyms predominate, appearance is the most important category. There, Karsch's percentage (60.8%) lies between that of Brauer (69.2%) and Ris (51.2%). Its most important sub-category in Karsch is morphology, at 26.4%, as in Brauer, where it accounts for 21.0%. In Ris, however, coloration is the main component at 23.1%, compared to only 11.4% in Karsch. In contrast, pattern is somewhat more important at Karsch with 13.2%, a value that Brauer's 12.4% comes close to.

Karsch's percentages for eponyms lie between those of Brauer (8.6%) and Förster (26.0%), far below those of Schmidt (50.9%) and Krüger (41.9%), with his share of collectors or donors at 8.5% between the values of Brauer (4.8%) and Förster (12.7%).

Toponyms play a significantly smaller role for Karsch (8.4%) than for Brauer, Ris and Schmidt, where the values are fairly even between 11.9 and 12.9%, and even less so compared to Krüger's 16.3% and Förster's 21.9%.

Among the species authored by Karsch are also those collected by Ernst Baumann (1871-1895) in Togo, in spite of being credited to the collector in the publication Karsch 1898a, as the descriptions of the new species certainly were made by Karsch himself, since the article

in which they are found was written after Baumann's death, while data on location, number, and date of discovery surely were derived from Baumann's records. In the years before Karsch had corresponded with Baumann, as evidenced by Karsch 1894d, and had given him advice on his collecting activities, which Baumann had intended to follow.

Although Karsch did not comment on the difficulties of taxonomic work in connection with dragonflies, he had previously done so in relation to arachnological classification (1879a: 7). He said he was aware that his work would not definitively decide everything, "vielmehr ist er sich sehr wohl bewusst, mit wie grossen Schwierigkeiten eine Systematik zu kämpfen hat und auf wie schwankender Basis eine Classification beruht, welche nicht von der Beobachtung lebender Wesen in der Natur selber ausgeht, sondern sich auf aufgespeichertes todttes Museumsmaterial beschränken muss [rather, he is very aware of the great difficulties a system faces and the shaky foundation upon which a classification is based that does not start from the observation of living beings in nature itself, but must limit itself to stored, inanimate museum material]." But this was a problem that accompanied his entire classificatory work at the Berlin Museum.

It is now appropriate to turn to the topic of synonyms and homonyms in Karsch. The results differ significantly for genera and species. Of the 33 genera suggested by Karsch more than half (17 = 51.5 %) turned out to be homonyms (2 = 6 %) or synonyms (15 = 45.5 %); this proportion corresponds approximately to that of Friedrich Förster (17 of 34 genera, see Fliedner 2025: 18).

The homonym *Apatelia* was preoccupied by the trichopteran genus *Apatelia* Wallengren, 1886, which belongs to an order about which Karsch never published on as far as I see. And the other one, *Platyplox*, was preoccupied by the homopteran genus *Platyplox* Fieber, 1860, to which belong just two species. So, they may have been easily overlooked by Karsch.

Regarding synonyms, it should be noted that Karsch's odonatological publications fall within a period of great increase in the knowledge of Odonata, for example through investigations by European powers in their colonies, but also through research expeditions to South America and South and East Asia. This well could lead to genera or species being described more than once.

Of Karsch's synonymous genera 13 date from the years 1889 to 1891, i.e., the beginning of his work with dragonflies. Of these one from 1889 is synonymous with an aeschnid described by Selys in the same year, one libellulid genus from 1889 and two from 1890 were junior synonyms of taxa published in Kirby 1889a.

Another source of synonyms were many new libellulids discovered during this period, which only found coherent systematics through Ris' work.

These taxonomic difficulties can be well illustrated by the following example: Kirby (1889a: 289) had established a genus *Thermothermis* "To include *Libellula caffra*, Burm., *angustri-ventris* and *madagascariensis* Ramb.; the last may be regarded as the type."

Karsch (1891b: 58) recognized this classification as partially erroneous and remarked: "glaube ich hinter das Geheimniss von *Thermothermis* gekommen zu sein und habe die Ueberzeugung gewonnen, dass Kirby diese Gattung 1) ganz ungenügend und 2) höchst einseitig und damit falsch begründet hat [I believe I have uncovered the secret of *Thermothermis* and have gained the conviction that Kirby 1) entirely inadequately and 2) in a highly one-sided

and therefore incorrectly justified this genus[.]” He therefore defined the genus based on other criteria and added three new species (*coacta*, *defecta*, *versuta*). In addition, in his next publication (1891c: 75-76) he founded a new genus *Hadrothemis* near to *Thermorthemis*, based on the species *camarensis* described by Kirby as an *Orthetrum*, and also, starting from other criteria, established a synonymous genus *Archiclops* and three years later (1894: 14) another synonymous taxon, *Nympheutria*, based on his species *defecta* and *versuta*, which he formerly had regarded to belong to *Thermorthemis*. Ris (1909: 168) made the following assessment of this complex of genera: “Im übrigen konnte ich mich nicht entschließen, die anderen von Karsch aufgestellten Gattungen zu übernehmen und so die in allen wichtigen Merkmalen und auch geographisch geschlossene Gruppe zu zerreißen. Ich habe darum alle unter dem ältesten der KARSCH'schen Namen vereinigt; die Type dieser neuen Gattung bildet *camarensis* KIRBY [Furthermore, I could not bring myself to adopt the other genera established by Karsch {except for *Hadrothemis*} and thus break up the group, which was coherent in all important characteristics and also geographically. Therefore, I united them all under the oldest of Karsch's names; the type species of this new genus is *camarensis* Kirby].” Similarly, two others of Karsch's genera described in 1890 (*Allorhizucha*, *Malamarptis*) are now synonyms of genera established by him in 1889. Concerning another synonym from the year 1889 (*Compsothemis*) Karsch himself corrected his error half a year later (1890b: 352) reporting that an inaccuracy in Brauer's description of the wing venation of *Rhyothemis* had led to that mistake, which he had recognized from its modification in Kirby 1889a: 258.

Of Karsch's 106 species-group names 27 (25.5 %) were synonyms. This percentage is at a high level compared to the most prolific odonatological authors listed by Wasscher & Dumont 2013: 394, which are Fraser: 28 %, Hagen 26 %, Selys 20 %, Ris 14% and Lieftinck 5 %. For other authors these numbers are somewhat higher: Brauer: 30 %, Förster: 44.2%, Er. Schmidt 29.5 %. One reason for this might be, that for Karsch the large collection of the Berlin Natural History Museum allowed a better control than the working conditions for Brauer, Förster and Schmidt.

In his naming convention, Karsch endeavored to retain unpublished names from the collection of the Berlin Zoological Museum, such as the names *herculea* (by Appun, p. 47), *lugubris* (by Ehrenberg, p. 54), *nycteris* (by Sello(w), p. 60) and *semiaurea* (by Hagen p. 63). He also transferred *nomina nuda* by Hagen (*Hypothemis*, p. 23, *liriopa*, p. 53) to new taxa.

Many of the dragonfly specimens Karsch described had been collected in German colonies around the same time. Some of these are named after collectors who played a role in German colonial policy, including several officers, who are then referred to with their military rank (see *klingi* p. 50, *preussi* p. 62, *stuhlmanni* p. 66). These individuals were not only there as scientists but also involved in so-called punitive expeditions against natives who resisted European rule, as was Ernst Baumann (1871-1895), whose Odonata are described in Karsch 1898a. In his efforts to achieve correct naming, Karsch went so far as to use the military rank of reserve officer, which had been acquired long before, in the case of Ernst Hartert (see p. 45), known as an ornithologist, who collected specimens from the Dutch East Indies and Southeast Asia in no military capacity between 1887 and 1889.

There is little evidence about Karsch's relationship or cooperation with other odonatologists, except for a visit to Brauer and the Natural History Museum at Vienna, mentioned in Karsch

1894c and Grünberg 1903: 718. Apart from this and Karsch's inventory of Heinrich Dohn's collection in Stettin (1890e), I have not found any other odonatological collaborations. There is no evidence that he might have been involved in the three respective publications by his younger colleague at the Museum, H.J. Kolbe (1884, 1885, 1888) and it does not seem probable, as these were published before his own odonatological activities.

That there is no indication of contacts or cooperation concerning dragonflies with other scientists or institutions contrasts with his early days in Berlin, where he mentions arachnological contacts with Vienna, Stuttgart, and Munich (Karsch 1879b: 190) and a bit later, when he classified undescribed arthropods from the museums at Bremen (1884a) and Hamburg (1884b).

For a later date I could not find such efforts for other museums, possibly due to his increasing workload from publishing two journals and teaching obligations or to the intervention of his superior Möbius from 1887 onwards.

So, what is known about his relationship to other odonatologists is very little. One must keep in mind that at the time when Kirby began his odonatological activities there were few odonatologists of international renown. P.P. Calvert and R. Martin began their work on Odonata around the world about at the same time as Karsch, Förster, Ris and Williamson a little later.

There certainly is his feud with Kirby, which Hämäläinen (2017) describes in detail. In this context Karsch mentioned a letter from McLachlan concerning a calopterygid misidentified by Kirby (and also by himself; see Karsch 1892: 456).

Whether Karsch informed F. Förster directly about his rejection of the genus *Karschia*, not only because of homonymy to *Karschia* Walter, 1889 in Arachnida, but also because of distinguishing features he thought not to be sufficient for a genus, by letter or just by his criticism in Karsch 1900a: 215, is not known.

The Ris correspondence (Seehausen et al. 2023) shows, that Calvert during his stay at Berlin in winter 1895 and 1896 met Karsch (p. 8) and that Muttkowski (p. 37) and Tillyard (p. 57) complained about Karsch not answering letters.

Similarly, F. Förster advised E.B. Williamson in an unpublished letter from June 1901, who had asked how he might get reprints from Karsch: "I have often written to Mr. Karsch but rarely has he answered. To receive notes {= separata} from him you must write very much and often, he does not have much time." And in the end of the letter he suggested, that Williamson should contact the publisher, Friedländer & Sohn, about reprints, which might be more promising.

But it is to be noted, that all these comments fall in the years after 1900, when Karsch already had given up to publish on entomology. Even in retirement however, Karsch enjoyed the respect of experts, as evidenced by Ris' (unpublished) diary entry about his stay in Berlin at the end of April 1927, which states: "Kurzer & etwas missglückter Besuch bei Karsch auf Anregung Dr. Hering [Short & somewhat unsuccessful visit to Karsch at suggestion of Dr. Hering]."

It is not easy to draw conclusions about Ferdinand Karsch. His diverse professional qualifications are beyond question. The fact that he seems to have avoided correspondence with other scientists in later years may have been due to his workload, or perhaps his enjoy-

ment of entomology diminished under his difficult relationship with Director K. Möbius, leading him to focus more intently on the topic of same-sex relationships, which had been important to him from an early age, it is impossible to say for sure, as no personal statements of him on the subject have survived.

That there was collaboration with other museums in his earlier years is described above. His helpfulness to colleagues at the Natural History Museum is demonstrated by his initial support for Grünberg (see p. 8) or an expression of gratitude from Enderlein (1912): "Zu besonderem Danke verpflichtet bin ich ... Herrn Professor Dr. F. Karsch in Berlin für langjähriges Leihen seines Zeiss-Mikroskopes [I am particularly indebted ... to Professor Dr. F. Karsch in Berlin for lending me his Zeiss microscope for many years]." On the other hand, he seems to have reacted sharply when he had the impression of incompetence, as in the case of Kirby (see above), or in connection with Förster's genus *Karschia* (see p. 84).

One of Karsch's character traits seems to have been a sense of superiority over others, for example, in the correct use of ancient languages. This can be illustrated by the following examples: he used the name *Hoplonaeschna* instead of *Oplonaeschna*, as established by Selys (see p. 23), or he created a species name *hemicolon* finding the name of the punctuation mark semicolon unsuitable, as it was a combination of a Latin and a Greek element (see p. 46; cf. also his rejection of the term homosexual, p. 10). Similarly, he also placed the letter K at the beginning of names like 'Kalopterygiden' (1889a; 1892a; but 1893a with C) or 'Korduliinen' (1890b: 347, 358), since they originated from Greek, which does not have the letter C. His use of the name form 'Caenagrioniden' (1893a: 35; 1894b: 16) also suggests that he suspected Kirby had mistakenly followed the medieval custom of writing -oe- in Latin instead of the ancient -ae-, which would not have been permissible for a word of Greek origin. This change would imply a different interpretation, *Caenagrion* ($\approx$ new *Agrion*) instead of *Coenagrion* ($\approx$ common *Agrion*).

That he placed great importance on good manners is shown in his judgment of a colleague, which emerges from Horn's record from May 1931: "xxx war in seinem Benehmen ein Rüpel, der die elementarsten Begriffe von Anstand verletzte [xxx was a lout in his behavior, violating the most basic notions of decency]." Reasons given for this assessment base on the fact that he occasionally farted in the presence of several people.

In it, he revealed himself to be shaped by the educated middle class, which values education, effort and manners.

Karsch had experience in classificatory work with arthropods since his youth. Thus, even at the beginning of his work with odonates, he was able not only to describe individual taxa but also to make important contributions to the systematics of families. However, the relatively high percentage of synonyms and homonyms also shows that he did not always have a lucky hand in creating new genera. Nevertheless, his work, like that in arachnology and other entomology, advanced odonatology. Therefore, it is pointless to speculate what more he might have accomplished with his knowledge and skills had he not ceased his zoological publishing activities at the turn of the century.

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I searched the internet for information about people and historical contexts from Wikipedia, used zobodat and BHL to access literature and had the programmes DeepL and google translate help me formulate the text of some sections.

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Index of synonyms

This list shows under which names given by Karsch the valid names of the taxa are found:

<i>abjecta</i>	→ <i>ponderosa</i>
<i>Aethiothemis</i>	→ <i>Apatelia</i>
<i>Aethriamanta</i>	→ <i>Dicranopyga</i>
<i>amazonica</i>	→ <i>semiaurea</i>
<i>angustriventris</i>	→ <i>aequale</i>
<i>argo</i>	→ <i>nycteris</i>
<i>Brachythemis</i>	→ <i>Zonothrasys</i>
<i>cognata</i>	→ <i>regalis</i>
<i>curta</i>	→ <i>decorata</i>
<i>denticauda</i>	→ <i>finschi</i>

<i>elliotti</i>	→ <i>dolabrata</i>
<i>Chalcostephia</i>	→ <i>Corduliops</i>
<i>croceus</i>	→ <i>externa</i>
<i>farinosa</i>	→ <i>pollinosum</i>
<i>flavifrons</i>	→ <i>metallifrons</i>
<i>flavipennis</i>	→ <i>nubilipennis</i>
<i>ida</i>	→ <i>luxuriosa</i>
<i>Heteropodagrion</i>	→ <i>Neuragrion</i>
<i>marmorata</i>	→ <i>tenuis</i>
<i>minuscule</i>	→ <i>delia</i>
<i>multicolor</i>	→ <i>furcifera</i>
<i>Neodythemis</i>	→ <i>Allorhizucha</i>
<i>Nephepeltia</i>	→ <i>Neothemis</i>
<i>Notogomphus</i>	→ <i>Podogomphus</i>
<i>nubecula</i>	→ <i>catharina</i>
<i>Oligoaeschna</i>	→ <i>Jagoria</i>
<i>Oplonaeschna</i>	→ <i>Hoplonaeschna</i>
<i>orichalcea</i>	→ <i>kricheldorffi</i>
<i>Paragomphus</i>	→ <i>abnormis</i>
<i>Planiplax</i>	→ <i>Platyplax</i>
<i>rezia</i>	→ <i>mundula</i>
<i>Rhyothemis</i>	→ <i>Compsothemis</i>
<i>sanguinipes</i>	→ <i>mysticum</i>
<i>semiopaca</i>	→ <i>martinae</i>
<i>speciosus</i>	→ <i>pretiosa</i>
<i>spernatum</i>	→ <i>gerstaeckeri</i>
<i>Trithemis</i>	→ <i>Helothemis</i>
<i>Tyriobabta</i>	→ <i>Monocoloptera</i>
<i>unimaculata</i>	→ <i>hemimelaena</i>
<i>venosa</i>	→ <i>liriopa</i>
<i>Zygonyx</i>	→ <i>Schizonyx</i>

Appendix I

Transcription of the postcard of Karsch to Ris (see Fig. 2, page 4)

Berlin, den 18. Oktober 1898.

Sehr geehrter Herr Doktor!

Ihr Manuskript fand ich auf
der Rückkehr von meiner Urlaubsreise
hier vor und sandte es sofort in die
Druckerei; den Umständen nach konnte
es vor dem 1. November nicht im Druck
erscheinen und zu diesem Termin wird
es auch fertig vorliegen. Ihre Besorg-
nis verstehe ich vollkommen; man ar-
beitet nicht gern vergeblich.

Der Correctur können Sie baldigst
entgegensehen und bitte ich Sie hinwie-
derum um baldgefällige Erledigung
derselben.

Mit collegialem Gruße

Ihr ergebener

F. Karsch

Berlin, October 18, 1898.

Dear Doctor,

Upon my return from my vacation trip, I found your manuscript awaiting me here and immediately forwarded it to the ... printing house; given the circumstances, it could not appear in print before November 1st—and by that date, it will indeed be ready. I fully understand your concern; no one likes to work in vain.

You may expect to receive the proofs very shortly, and I, in turn, request your prompt attention to their correction.

With collegial regards, Yours sincerely, F. Karsch

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While preparing the manuscript authors should consider that, although the journal gives some freedom in the style and arrangements of the sections, the editors would like to see the following clearly defined sections: Title (with authors names, physical and e-mail addresses), Abstract, Introduction, Material & Methods, Results, Discussion, Acknowledgments and References. This is a widely used scheme by scientists that everyone should be familiar with. No further instructions are given here, but every author should check the style of the journal.

Authors are advised to avoid any formatting of the text. The manuscripts will be stylised according to the font type and size adopted by the journal. However, check for: a) all species names must be given in italic, b) the authority and year of publication are required on the first appearance of a species name in the text, but not thereafter, and c) citations and reference list must be arranged following the format below.

Reference cited in the text should read as follows: Tillyard (1924), (Tillyard 1924), Swezey & Williams (1942).

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Swezey, O. & F. Williams, 1942. Dragonflies of Guam. Bernice P. Bishop Museum Bulletin 172: 3-6.

Tillyard, R., 1924. The dragonflies (Order Odonata) of Fiji, with special reference to a collection made by Mr. H.W. Simmonds, F.E.S., on the Island of Viti Levu. Transactions of the Entomological Society London 1923 III-IV: 305-346.

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The manuscript should end with a list of captions to the figures and tables. The latter should be submitted separately from the text preferably as graphics made using one of the Microsoft Office products or as a high resolution picture saved as a .jpg .tif or .ps file. Pictures should be at least 11 cm wide and with a minimum 300 dpi resolution, better 360 dpi. Line drawings and graphics could have 1200 dpi for better details. If you compose many pictures to one figure, please submit the original files as well. Please leave some space in the upper left corner of each picture, to insert a letter (a, b, c...) later. Hand-made drawings should be scanned and submitted electronically. Printed figures sent by the post could be damaged, in which case authors will be asked to resubmit them.

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