On the correct dates of publication of the arachnid taxa described in some works by C. W. Hahn and C. L. Koch (Arachnida)

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Summary

The publication dates of 123 valid arachnid taxa (98 Araneae, 17 Scorpiones, 3 Amblypygi, 5 Opiliones) described by C. W. Hahn and C. L. Koch in *Die Arachniden* (1831-1847), wrongly reported in all reference works, are corrected according to the indications of Sherborn (1914). The publication dates of three of the eight parts of *Monographie der Spinnen* by C. W. Hahn (1820-1836) are uncertain. Part 5 of *Uebersicht des Arachnidensystems* by C. L. Koch (1837-1850) appeared in 1850 and not in 1851 as often reported.

Introduction

Any taxonomist knows the importance of the publication date of a taxon; unfortunately, especially for old works, which were published in separate parts during many years, it is often difficult to know exactly when each part appeared. In many instances the "parts" were later bound together in "volumes", with a frontispiece bearing a wrong date, e.g. that of the year in which the volume was completed. Quite often the first parts of the volume had been printed and distributed many years before.

Die Arachniden

The above is the case with one of the most important early arachnological works, *Die Arachniden*, consisting of 16 volumes, all of which were printed in 6 parts, with the exception of the last, formed of only 4 parts; the first two volumes were written by Carl Wilhelm Hahn, the rest by Carl Ludwig Koch.

The well-known expert in zoological bibliography, Sherborn, published in 1914 a short note in which, after painstaking researches in the library of the British Museum, he ascertained the exact publication dates of 92 of the 94 parts; this note has unfortunately been overlooked by all arachnologists, with the result that the great catalogues by Bonnet and Roewer also give the wrong dates for a considerable number of

volumes.

The following are the correct publication dates (in parentheses are the dates as reported by Bonnet and Roewer): volume I (1831): part 1, 1831, parts 2-3, 1832, parts 4-6, 1833; volume II (1834); part 1. 1833. parts 2-4, 1834, parts 5-6, 1835; volume III (1836), parts 1-5, 1836, part 6, 1837; volume IV (1838): parts 1-5, 1837, part 6, 1838; volume V (1839): parts 1-5, 1838, part 6, 1839; volume VI (1839): parts 1-6, 1839; volume VII (1839); parts 1-5, 1839, part 6, 1840; volume VIII (1841); parts 1-2. 1840, parts 3-6, 1841; volume IX (1842); parts 1-3, 1841, parts 4-6, 1842; volume X (1843); part 1. 1842, part 2, ?, parts 3-5, 1843, part 6, ?; volume XI (1845): parts 1-6, 1844; volume XII (1845): parts 1-6, 1845; volume XIII (1846); parts 1-6, 1846; volume XIV (1848); parts 1-2, \$1846, parts 3-6, 1847; volume XV (1848); parts 1-6, 1847; volume XVI (1848): parts 1-4, 1847.

Fortunately, most parts appeared earlier than usually reported; this fact, combined with the very limited number of important arachnological works published in the period 1831-1847, has prevented any necessity of changing names. However, it would be useful, at least for the sake of precision, to correct the wrong dates. In order to make this possible for the many colleagues who do not have access to this old work, I list here the — apparently — still valid taxa, with their current generic names (for the Scorpiones and Pedipalpi, I based myself on Kraepelin, 1899, and for the Opiliones, on Roewer, 1923; I did not have the time for checking the most recent literature).

Araneae

1832 (not 1831): Heliophanus flavipes; Sitticus littoralis; Xysticus robustus; X. sabulosus; X. ulmi.

1833 (not 1831): Amaurobius claustrarius; Dipoena tristis; Enoplognatha thoracica; Gnaphosa bicolor; Theridion varians; Titanoeca quadriguttata.

1835 (not 1834): Alopecosa schmidti; Araneus ullrichi; Micrathena bifurcata.

1837 (not 1838): Eresus fumosus; Eusparassus tersus; Gasteracantha cuspidata; G. hasselti; G. kuhli; G. transversa; Micrathena armigera; Xysticus graecus.

1838 (not 1839): Araneus fuligineus; A. venator; Argiope clathrata; Brachythele icterica; Cyrtophora porracea; Dysdera crocota; D. punctata; Eurypelma bistriatum; Eustala gonygaster; E. tridentata; Harpactea lepida; H. rubicunda; Lycorma amylacea; Mimohogna vultuosa; Nemesia africana; Oxyopes pallidus; Tricca hellenica.

1840 (not 1841): Tegenaria pagana.

1841 (not 1842): Gen. Corinna; Acanthoscurria geniculata; Avicularia leporina; A. seladonia; Castianeira amoena; C. cingulata; C. memnonia; C. tricolor; Chaetopelma olivaceum; Corinna nigricans; C. rubripes; Diplura macrura; Lasiodora klugi.

1844 (not 1845): Araneus grossus; A. hirtus; A. hispidus; Cyphepeira silvicultrix; Eriophora ravilla; Gasteracantha cicatricosa; G. mammosa; G. sanguinolenta; Hypsosinga sanguinea; Paraplectana hemisphaerica; Singa nitidula; Uloborus canescens.

1846 (not 1848): Gen. Maevia; Admestina tibialis; Euophrys striolata; Evarcha laetabunda; Fuentes lineata; Phlegra lineata; Rhene albigera; R. flavigera; R. nigrita; Viciria flavocincta.

1847 (not 1848): Gen. Arctosa, Aulonia, Pardosa, Trochosa, Zora; Agalenocosa helvola; Alopecosa fuscipes; A. obsoleta; Arctosa variana; Diapontia sacra; Dolomedes aerugineus; Hogna vulpina; Leaenella intricaria; Lycosa cingara; Oxyopes lineatipes; Pardosa atomaria; P. proxima; Peucetia thalassina; Phoneutria ochracea; Scaptocosa poliostoma; Thaumasia marginella; Trechalea longitarsis; Trochosa oblonga.

Scorpiones

1837 (not 1836): Euscorpius germanus.

1837 (not 1838): Gen. Ischnurus, Opisthophthalmus; Heterometrus fulvipes; Ischnurus ochropus. 1838 (not 1839): Buthus australis priamus; Scorpio testaceus.

1841 (not 1842): Heterometrus bengalensis; H. caesar; Pandinus imperator.

1842 (not 1843): Opisthophthalmus pallipes; Vaejovis carolinus.

1844 (not 1845): Archisometrus marmoreus; Centrurus infamatus; Tityus clathratus; Uroplectes lineatus; U. variegatus.

Amblypygi

1840 (not 1841): Admetus pumilio; Tarantula marginemaculata.

1847 (not 1848): Tarantula fuscimana.

Opiliones

1840 (not 1839): Cosmetus mesacanthus; Cynorta phalerata; Paecilaema limbatum.

1847 (not 1848): Syleus niger; Trogulus tingiformis.

I did not have the time for checking if these changes of dates cause any problems in the Scorpiones, Amblypygi and Opiliones; in spiders I noticed the following:

- 1. Sitticus littoralis (Hahn, 1832) is listed by Bonnet (1958) as a doubtful synonym of Sitticus floricola (Koch, 1837), as also is Attus pubescens Sundevall, 1832. The latter name could be older than littoralis, which Harm (1973) uses instead of the better-known S. floricola. However, as pubescens would become a junior homonym of S. pubescens (Fabricius, 1772), the valid name would remain littoralis (or floricola for those who do not accept Harm's conclusion).
- 2. Theridion leuconotum Hahn, 1831, regarded for many years as a junior synonym of Theridion varians Hahn, 1833, now has priority, but must be rejected on the grounds of usage.
- 3. Gnaphosa bicolor (Hahn, 1833) becomes a junior synonym of part of the "mixture" Drassus nocturnus Sundevall, 1831 which should correspond also to Poecilochroa variana (C. L. Koch, 1839), Zelotes ater (Hentz, 1832) and Callilepis nocturna (Linné, 1758). As the identity of D. nocturnus is so confused, G. bicolor should remain a valid name.
- 4. Three *Maevia* species (*cristata*, *sulphurea* and *chrysea*), described by C. L. Koch in December 1846, which have for many years been considered as synonyms of three species described by Hentz in the same year, cause no problems, as the latter paper appeared in June 1846.
- 5. Heliophanus flavipes (Hahn, 1832) is preferred by most authors to H. ritteri (Scopoli, 1763), used by Roewer (1942-1954) and a few others; I have not seen Scopoli's work and cannot judge on the status of ritteri, considered by Bonnet a nomen dubium.
- 6. In the text of the Katalog der Araneae (but not in the bibliography) many description dates are wrong (and have been used unknowingly by other authors); e.g. Xysticus robustus (Hahn, 1832) is not younger than "Thomisus" obscurus Hahn, which was not published in 1831, but in 1833; Heliophanus

auratus and H. dubius were not described first in Die Arachniden (1848, correctly 1846) but in 1835.

7. Lycosa/Lycorma amylacea C. L. Koch, 1838, which according to some authors is a synonym of Lycosa maculata Hahn, 1822, is valid for Roewer (1942-1954) as maculata should probably be synonymous with Arctosa cinerea (Fabricius, 1776).

Monographie der Spinnen

There are a few problems also with Hahn's small work Monographie der Spinnen, which was a kind of first draft of Die Arachniden, with a much shorter text and better illustrations. In 1831, in the introduction to his second work, Hahn wrote that five parts of the Monographie had already appeared; he seemed unwilling to continue this work, because of the slowness of publication. Anyway, three more parts appeared, printed very differently, the last of which, probably due to the death of Hahn (1836) bore the signature of the printer, J. J. Lechner (the species were described under the name of Hahn). Only on the first and longest part is there a date: April 1820.

The dates of publication, according to Bonnet, are: 1 (1820), 2 (1821), 3 (1822), 4 (1826), 5 (1827), 6 (1831), 7 (1834), 8 (1836); Roewer differs from this by attributing part 2 to 1820, 5 to 1829 and 7 to 1833.

Few, if any, of the early authors cared about the dates of publication; Walckenaer (1837) attributes part 2 to 1829 (!; page 244) and part 5 to 1827 (page 313); also for Menge (1866: 19) the *Monographie* begins in 1829. Thorell (1870-1873) was uncertain about part 2 (he wrote "182?"); he attributes part 5 to 1829 and part 7 to 1833. I could not find other old quotations of this work.

Fortunately, few problems arise from the uncertainty about parts 2, 5 and 7, as the only surely valid species in them is *Menemerus semilimbatus*, the date of which could be 1827 or 1829; four more species are *nomina dubia*; finally, *Chiracanthium dumetorum* (1833 or 1834) has been used only by Roewer instead of the better-known *C. erraticum* (Walckenaer, 1802).

Uebersicht des Arachnidensystems

The only problem with the work *Uebersicht des Arachnidensystems* by C. L. Koch, published in 5 parts from 1837 onwards, concerns part 5, the date

of which is given as 1851 by Bonnet and as 1850 by Roewer. As the frontispiece bears the date 1850, which is in a way confirmed by the date of the introduction (by A. Haupt), July 1849, I am inclined to accept 1850. This is therefore the valid date for the genera Aphirape, Ballus, Corythalia, Diplura, Eurypelma, Freya, Frigga, Lasiodora, Psecas and Trechona.

Acknowledgement

My warmest thanks go to Peter Merrett for his help in the preparation of this note.

References

- BONNET, P. 1945-1959: Bibliographia Araneorum 1: 1-832; 2: 1-5058. Toulouse.
- HAHN, C. W. 1820-1836: Monographie der Spinnen 1: 1-16; 2: 1-2; 3: 1-2; 4: 1-2; 5: 1-2; 6: 1; 7: 1; 8: 1. Nürnberg. (I know this work only in microfiche; in the last three parts the text consists of a single page, and not two, as reported by Bonnet.)
- HAHN, C. W. & KOCH, C. L. 1831-1847: Die Arachniden 1: 1-129; 2: 1-75; 3: 1-120; 4: 1-144; 5: 1-158; 6: 1-156; 7: 1-130; 8: 1-131; 9: 1-108; 10: 1-142; 11: 1-174; 12: 1-166; 13: 1-234; 14: 1-210; 15: 1-136; 16: 1-80. Nürnberg.
- HARM, M. 1973: Revision der Gattung Sitticus. Senckenberg. biol. 54: 369-403.
- HENTZ, N. M. 1846: Descriptions and figures of the Araneides of the United States. J. Boston Soc. nat. Hist. 5(3): 352-370.
- KOCH, C. L. 1835: Deutschlands Crustaceen, Myriapoden und Arachniden, herausgegeben von G. A. W. Herrich-Schaffer. Hefte 128-133. Regensburg. (Not seen; there are possibly considerable problems with this very rare work.)
- KOCH, C. L. 1837-1850: Uebersicht des Arachnidensystems
 1: 1-39; 2: 1-38; 3: 1-130; 4: 1-136; 5: 1-104.
 Nürnberg.
- KRAEPELIN, K. 1899: Scorpiones und Pedipalpi. *Tierreich* 8: 1-265.
- MENGE, A. 1866: Preussische Spinnen. Erste Abtheilung. Schr.naturf. Ges. Danzig (N.F.) 1: 1-152.
- ROEWER, C. F. 1923: Die Weberknechte der Erde. 1-1116. Jena.
- ROEWER, C. F. 1942-1954: Katalog der Araneae von 1758 bis 1940, bzw. 1954 1: 1-1040; 2: 1-1751. Bremen & Bruxelles.
- SHERBORN, C. D. 1914: On the dates of publication of C. W. Hahn and C. L. Koch "Die Arachniden" 1831-1849. Ann. Mag. nat. Hist. (8) 14: 143-144.
- THORELL, T. 1870-1873: Remarks on synonyms of European spiders, 1-645. Upsala.
- WALCKENAER, C. A. 1837: Histoire naturelle des Insectes. Aptères 1: 1-682. Paris.