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Taxonomic notes on the bee genus *Scrapter* LEPELETIER & SERVILLE, 1828, with a checklist to species (Hymenoptera, Anthophila, Colletidae)

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A b s t r a c t : To facilitate current phylogenetic and pollination studies it has become necessary to formally establish nomenclatural changes in the southern African bee genus *Scrapter* that are resulting from the examination of all available type material. Based on the results of this study an updated checklist of the 77 valid species is given and corrected information is provided on the depositories of the holotypes of ten recently described *Scrapter* species. *Scrapter rufescens* (FRIESE, 1912) is treated as a nomen dubium.

Scrapter merescens COCKERELL, 1944 was formerly synonymised with *S. leonis* COCKERELL, 1934 but is now recognized as a synonym of *S. capensis* (FRIESE, 1909). A lectotype was designated for *S. merescens* to fix its identity. In addition the following two new synonyms are established: *Scrapter clarissimus* COCKERELL, 1936 = *S. pyretus* DAVIES, 2006 syn.nov. and *S. nitidus* (FRIESE, 1909) = *S. opacus* (FRIESE, 1909) syn.nov..

The species status of the following eleven taxa is restored: *Scrapter braunsianus* (FRIESE, 1925) spec.rev., *S. clarissimus* COCKERELL, 1936 spec.rev., *S. divergens* (FRIESE, 1925) spec.rev., *S. flavitarsis* COCKERELL, 1936 spec.rev., *S. fuscipennis* (FRIESE, 1912) spec.rev., *S. glaberrimus* (FRIESE, 1912) spec.rev., *S. ornatipes* COCKERELL, 1933 spec.rev., *S. pallidicinctus* COCKERELL, 1933 spec.rev., *S. perpunctatus* COCKERELL, 1933 spec.rev., *S. semirufus* COCKERELL, 1932 spec.rev. and *S. sphaecodoides* (FRIESE, 1912) spec.rev..

Key words : *Scrapter*, southern Africa, new synonymy, lectotype, type depository

Introduction

The bee genus *Scrapter* LEPELETIER DE SAINT-FARGEAU & AUDINET-SERVILLE, 1828 is the only genus of the tribe Scraptrini (MELO & GONÇALVES 2005, MICHENER 2007) and was even ranked as a subfamily of its own by ENGEL (2005) and ASCHER & ENGEL (2006). As a genus *Scrapter* is easily identifiable because it is the only hairy colletid bee genus in Africa with two submarginal cells (*Colletes* as the only other genus of hairy colletids on this continent has three submarginal cells) (MICHENER 2007). *Scrapter* species have an unusually diverse morphology (DAVIES & BROTHERS 2006) and are specialized visitors of a range of flowers (GESS & GESS 2003, 2006, KUHLMANN & EARDLEY 2012, KUHLMANN 2014, KUHLMANN & FRIEHS 2020).

Bees of this genus are largely endemic to southern Africa with the center of species diversity in the Greater Cape Floristic Region (GCFR) (KUHLMANN 2005, 2009). A single species was recorded from Kenya (DAVIES et al. 2005) but all *Scrapter* "records" and those

of most other bees from Uganda published by MUNYULI (2011: 599-609) were demonstrably fabricated and no reference specimens exist. This data was used by the same author for a number of subsequent publications and at least one of them was retracted based on these concerns (MUNYULI et al. 2013).

Since the first revision of *Scapter* by EARDLEY (1996), who recognized 31 species, the genus attracted a lot of attention in subsequent years resulting in the description of 36 additional species and some nomenclatural changes (DAVIES et al. 2005, DAVIES & BROTHERS 2006, KUHLMANN 2014, KUHLMANN & FRIEHS 2020). Most recently BOSSERT & VAN NOORT (in press) demonstrated that even the large and morphologically isolated *S. heterodoxus* (COCKERELL), seemingly a well defined taxon, consists of two different although closely related species that were synonymized earlier. This underpins the need for a critical reexamination of the current understanding of species delimitations in the genus and all available type material. Given the number of already recognized undescribed species *Scapter* could easily turn out to be the most speciose bee genus in the GCFR making it an ideal model for studying bee diversification processes particularly when its morphological diversity and the broad spectrum of flower specialisations are considered.

Since 2002 rich new specimen material has become available for study, particularly from Namaqualand, including a wealth of closely related and often new species from taxonomically difficult species-groups (e.g. euryglossiform *Scapter*; KUHLMANN 2014, KUHLMANN & FRIEHS 2020). To enable the description of new species it was necessary to examine all available type material and to reassess earlier synonymisations that were frequently based on few specimens only that were available in those days. This resulted in the recognition of a number of unjustified synonymisations particularly of taxonomically difficult, closely related taxa of the *S. nitidus* (FRIESE) species-group. These are widely distributed and can be locally abundant flower visitors making them potentially important pollinators. All species of this and the other species-groups will be subject of detailed taxonomic studies, some of them already underway. However, to facilitate current phylogenetic and pollination studies it has become necessary to make names available more rapidly and to formally establish nomenclatural changes in this paper. Based on the results of this study an updated checklist of all described *Scapter* species is given. Furthermore a correction is made of holotype depositories of ten recently described *Scapter* species.

Materials and methods

Species are treated in alphabetical order of their valid names.

Acronyms for collections from which specimens were examined are as follows:

AMGS = Albany Museum, Grahamstown, South Africa (T. Bellingan); CUIC = Cornell University Collection, Ithaca, USA (B.N. Danforth); DNMNH = Ditsong National Museum of Natural History, Pretoria, South Africa (T. Bird, W. Strumpher); MNHN = Muséum National d'Histoire Naturelle, Paris, France (A. Toret-Alby); NHML = Natural History Museum, London, UK (D. Notton); RCMK = Research collection Michael Kuhlmann, Zoological Museum of Kiel University, Kiel, Germany; SAMC = Iziko South African Museum, Cape Town, South Africa (S. van Noort); SANC = South African National Collection of Insects, Pretoria, South Africa (W. Strumpher); ZMHB = Museum für Naturkunde, Berlin, Germany (V. Richter).

Taxonomic changes

***Scapter nitidus* species-group**

The *Scapter nitidus* species-group as defined by EARDLEY (1996: 42–43) comprises three species, namely *S. nitidus*, *S. opacus* (FRIESE) and *S. ruficornis* (COCKERELL), including a total of nine synonyms. However, examination of several hundred specimens of this group including all type material revealed that in fact this is a species-rich complex of closely related taxa that often show subtle but clearly distinct morphological (and, in case of sequenced species, genetic) characters. Many species in this group are undescribed and are subject to an ongoing study. Almost all of the published synonyms represent valid taxa and, thus, are reinstated here to make their names available for a phylogenetic study that is currently under way.

Due to the complicated taxonomy in this species-group, that was already recognized by COCKERELL (1935), it is almost certain that the record of a female *S. nitidus* from Kenya (DAVIES et al. 2005: 177) does not belong to this species. Unfortunately, no reference specimen could be found at SANC so it is impossible to verify the identity of the species as well as this unusual record far outside the known range of the genus.

***Scapter divergens* (FRIESE, 1925) spec. rev.**

Polyglossa (*Strandiella*) *divergens* FRIESE, 1925: 515. Holotype ♀ (Willowmore, South Africa) (ZMHB), examined.

EARDLEY (1996) synonymised this species with *S. ruficornis* (Cockerell).

***Scapter flavitarsis* COCKERELL, 1936 spec. rev.**

Scapter flavitarsis COCKERELL, 1936b: 481. Lectotype ♂ [designated by EARDLEY 1996] (Cape Town, South Africa) (NHML), examined.

EARDLEY (1996) synonymised this species with *S. opacus* (FRIESE).

***Scapter fuscipennis* (FRIESE, 1912) spec. rev.**

Strandiella fuscipennis FRIESE, 1912: 183. Lectotype ♀ [designated by EARDLEY 1996] (Kapland, South Africa) (ZMHB), examined.

EARDLEY (1996) synonymised this species with *S. nitidus* (FRIESE).

***Scapter glaberrimus* (FRIESE, 1912) spec. rev.**

Strandiella glaberrima FRIESE, 1912: 183. Lectotype ♂ [designated by EARDLEY 1996] (Port Nolloth, South Africa) (SAMC), examined.

EARDLEY (1996) synonymised this species with *S. opacus* (FRIESE). He designated a lectotype male of *Strandiella glaberrima* and gave the label data as 'Pt. Nolloth, aug. 90, R.M.L., *Strandiella glaberrima* Fr. ♂, 1910 Friese det., Typus' (EARDLEY 1996: 48). However, the specimen is not in ZMHB as mentioned by EARDLEY (1996) but in SAMC and is (probably erroneously) labelled as paralectotype because no paralectotype was mentioned in the publication.

***Scapter nitidus* (FRIESE, 1909)**

Polyglossa nitida FRIESE, 1909: 125. Holotype ♂ (Steinkopf, South Africa) (ZMHB), examined.

Polyglossa opaca FRIESE, 1909: 125. Holotype ♂ (Steinkopf, South Africa) (ZMHB), examined.

Syn. nov.

Examination of type specimens revealed that *S. nitidus* and *S. opacus* are synonyms and that the former type specimen is just an unusually small individual. Both males were collected in Steinkopf by Schultze and were described by Friese in the same publication and on the same page (FRIESE, 1909: 125). Following the Principle of the First Reviser I decided to give the name *S. nitidus* priority because the species-group has been named after this species and should be preserved.

***Scapter pallidicinctus* COCKERELL, 1933 spec. rev.**

Scapter pallidicincta [sic!] COCKERELL, 1933a: 206-208. Holotype ♂ (Oudtshoorn, South Africa) (NHML), examined.

EARDLEY (1996) synonymised this species with *S. opacus* (FRIESE).

***Scapter perpunctatus* COCKERELL, 1933 spec. rev.**

Scapter perpunctata [sic!] COCKERELL, 1933a: 205-206. Holotype ♀ (Knysna, South Africa) (NHML), examined.

EARDLEY (1996) synonymised this species with *S. nitidus* (FRIESE).

***Scapter semirufus* COCKERELL, 1932 spec. rev.**

Scapter semirufa [sic!] COCKERELL, 1932a: 452. Lectotype ♀ [designated by EARDLEY 1996] (Port Elizabeth, South Africa) (NHML), examined.

EARDLEY (1996) synonymised this species with *S. nitidus* (FRIESE).

***Scapter sphecodoides* (FRIESE, 1912) spec. rev.**

Strandiella sphecodoides FRIESE, 1912: 183-184, fig. 3. Lectotype ♀ (Kapstadt, South Africa) [designated by EARDLEY 1996] (SAMC), examined.

EARDLEY (1996) synonymised this species with *S. nitidus* (FRIESE).

Other species-groups***Scapter braunsianus* (FRIESE, 1925) spec. rev.**

Polyglossa braunsiana FRIESE, 1925: 517-518. Lectotype ♂ [designated by EARDLEY 1996] (Willowmore, South Africa) (DNMNH), examined.

Based on outer morphology and male genitalia *S. braunsianus* is clearly not conspecific with *S. capensis* (FRIESE 1909) and, thus, its status as a distinct species is here restored. *Scapter braunsianus* is closely related to *S. leonis* COCKERELL and especially females are very similar. Both sexes of *S. braunsianus* were described by FRIESE (1925) based on specimens collected on the same date at the same locality (15 August 1920, Willowmore) but while the male lectotype was synonymized with *S. capensis* (EARDLEY 1996: 83) the female was erroneously identified as *S. leonis*.

***Scapter capensis* (FRIESE, 1909)**

Polyglossa capensis FRIESE, 1909: 124-125, fig. 1. Lectotype ♂ [designated by EARDLEY 1996] (Steinkopf, South Africa) (ZMHB), examined.

Scapter merescens COCKERELL, 1944: 405-406, Lectotype ♀ [designated here] (Worcester, South Africa) (NHML), examined. **Syn. nov.**

Scapter merescens was described by COCKERELL (1944) based on seven females and was later synonymized with *S. leonis* COCKERELL by DAVIES & BROTHERS (2006). They examined a single female syntype labelled by Cockerell as "*Scapter merescens* Ckll. TYPE". According to DALY & ELSE (1988) specimens bearing such a label should be regarded as holotypes or be chosen as lectotype when a description is based on multiple specimens.

Examination of all seven females showed that COCKERELL (1944) described *S. merescens* based on a mixed series of five females of *S. leonis* and two females of *S. capensis* (FRIESE) with one of the latter specimens labelled as "TYPE" by Cockerell. Apparently DAVIES & BROTHERS (2006) misidentified this specimen and hence erroneously synonymized *S. merescens* with *S. leonis*. To fix the identity of *S. merescens* and its synonymy with *S. capensis* I here designate a lectotype. The female is labelled as follows (top to bottom): ♀ *Scapter leonis* Cockerell, Det.: G. Davies, 2005 / Syntype / (handwriting Cockerell): *Scapter merescens* Ckll. TYPE / Worcester: Cape Province. Sept. 1928. / S. Africa. R.E. Turner. Brit. Mus. 1928 – 457. / B.M. TYPE HYM. 17a 2740 / NHMUK010576248 / LECTOTYPE ♀ *Scapter merescens* Ckll., M. Kuhlmann det. 2019 / *Scapter capensis* (Fr.) ♀, M. Kuhlmann det. 2019.

***Scapter clarissimus* COCKERELL, 1936 spec. rev.**

Scapter clarissima [sic!] COCKERELL, 1936a: 30-31. Holotype ♀ (Seeheim, Namibia) (NHML), examined.

Scapter pyretus DAVIES, in DAVIES & BROTHERS, 2006: 170-173, figs 110-114. Holotype ♂ (Gaub Pass, Namibia) (AMGS), examined. **Syn. nov.**

Type examinations showed that *S. clarissimus* is not conspecific with *S. aureiferus* COCKERELL (synonymised by EARDLEY 1996: 60) but instead *S. pyretus* DAVIES is recognized as a junior synonym of the former.

***Scapter ornatipes* COCKERELL, 1933 spec. rev.**

Scapter ornatipes COCKERELL, 1933b: 70. Holotype ♀ (Van Reenen, South Africa) (NHML), examined.

Based on outer morphology and male genitalia *S. ornatipes* is clearly not conspecific with *S. pallidipennis* (COCKERELL) and, thus, its status as a distinct species is here restored.

Correction of holotype depositories of ten recently described *Scapter* species

For the following ten species the depository of holotypes was erroneously mentioned to be in the research collection of the author. Here I take the opportunity to clarify that these holotypes are deposited in the entomology collection of the Iziko South African Museum (SAMC) in Cape Town, South Africa:

Scapter avontuurensis KUHLMANN, 2020, *S. bokkeveldensis* KUHLMANN, 2020, *S. fynbosensis* KUHLMANN, 2020, *S. hergi* KUHLMANN, 2020, *S. keiskiensiensis* KUHLMANN,

2020, *S. mellonholgeri* KUHLMANN, 2020, *S. nitens* KUHLMANN, 2020, *S. oubergensis* KUHLMANN, 2020, *S. roggeveldi* KUHLMANN, 2014, *S. willemstrydomi* KUHLMANN, 2020.

Alphabetical checklist of the species of the bee genus *Scapter*

***Scapter absonus* EARDLEY, 1996**

Scapter absonus EARDLEY, 1996: 55-57, figs 27-31. Holotype ♂ (Langjan Nature Reserve, South Africa) (SANC), paratype examined.

***Scapter acanthophorus* DAVIES, 2005**

Scapter acanthophorus DAVIES, in DAVIES et al. 2005: 153-155, figs 4-8. Holotype ♂ (30 km N Vanrhynsdorp, South Africa) (SANC), examined.

***Scapter albifumus* EARDLEY, 1996**

Scapter albifumus EARDLEY, 1996: 74, figs 70-72, 81. Holotype ♂ (Cornell's Kop, Richtersveld) (SANC), paratype examined.

***Scapter albitarsis* (FRIESE, 1909)**

Polyglossa albitarsis FRIESE, 1909: 124. Holotype ♂ (Steinkopf, South Africa) (ZMHB), examined.

***Scapter algoensis* (FRIESE, 1925)**

Polyglossa (Strandiella) algoensis FRIESE, 1925: 519. Lectotype ♂ [designated by EARDLEY 1996] (Algoa Bay, South Africa) (DNMNH), examined.

Polyglossa rufofasciata FRIESE, 1925: 518-519. Holotype ♀ (Port Nolloth, South Africa) (ZMHB), examined.

Scapter sinophilus COCKERELL, 1944: 406. Syntypes ♀ & ♂ (Mossel Bay, South Africa) (NHML), examined.

***Scapter amplispinatus* EARDLEY, 1996**

Scapter amplispinatus EARDLEY, 1996: 80-81, figs 81, 88-90. Holotype ♂ (Middlepos, South Africa) (SAMC), not examined.

***Scapter amplitarsus* EARDLEY, 1996**

Rhinochaetula capensis FRIESE, 1913a (nec *Polyglossa capensis* FRIESE, 1909): 589-590. Holotype ♂ (Kapstadt, South Africa) (type depository unknown), not examined.

Scapter amplitarsus EARDLEY, 1996: 87-88, figs 98, 104-107 (replacement name for *Rhinochaetula capensis* FRIESE, 1913).

***Scapter armatipes* (FRIESE, 1913)**

Rhinochaetula armatipes FRIESE, 1913: 589. Holotype ♂ (Klein Namaland, South Africa) (type depository unknown), not examined.

Polyglossa (Parapolyglossa) namaqua BRAUNS, 1929: 135-136, figs 3, 4. Lectotype ♂ [designated by EARDLEY 1996] (Vanrhynsdorp, South Africa) (DNMNH), examined.

***Scapter aureiferus* COCKERELL, 1932**

Scapter aureifera [sic!] COCKERELL, 1932b: 558-559. Holotype ♂ (Nieuwoudtville, South Africa) (NHML), examined.

***Scapter avius* EARDLEY, 1996**

Scapter avius EARDLEY, 1996: 57-58, figs 31-34. Holotype ♀ (Klinghardttsberge, Namibia) (SANC), examined.

***Scapter avontuurensis* KUHLMANN, 2020**

Scapter avontuurensis KUHLMANN, in KUHLMANN & FRIEHS 2020: 3-5, fig. 1. Holotype ♀ (12 km NW Nieuwoudtville, South Africa) (SAMC), examined.

***Scapter basutorum* (COCKERELL, 1915)**

Capicola basutorum COCKERELL, 1915: 342-343. Holotype ♂ (Basutoland [Lesotho]) (NHML), examined.

Polyglossa (*Strandiella*) *luteipennis* FRIESE, 1925: 516. Holotype ♂ (Rikatla, Mozambique) (ZMHB), examined.

As EARDLEY (1996: 50) already mentioned the holotype in ZMHB is labelled (and catalogued) as *Polyglossa luteipes*, not *P. luteipennis*.

***Scapter bicolor* LEPELETIER & SERVILLE, 1828**

Scapter bicolor LEPELETIER & SERVILLE, 1828: 404. Holotype ♂ (Cafreterie, South Africa) (MNHN), examined.

Strandiella rufiventris FRIESE, 1912: 184, fig. 4. Holotype ♀ (Kapstadt, South Africa) (ZMHB), examined.

***Scapter bokkeveldensis* KUHLMANN, 2020**

Scapter bokkeveldensis KUHLMANN, in KUHLMANN & FRIEHS 2020: 5-7, fig. 2. Holotype ♀ (12 km NW Nieuwoudtville, South Africa) (SAMC), examined.

***Scapter braunsianus* (FRIESE, 1925)**

Polyglossa braunsiana FRIESE, 1925: 517-518. Lectotype ♂ [designated by EARDLEY 1996] (Willowmore, South Africa) (DNMNH), examined.

***Scapter caesariatus* EARDLEY, 1996**

Scapter caesariatus EARDLEY, 1996: 59-60, figs 31, 38-41. Holotype ♂ (Hester Malan Nature Reserve, South Africa) (SANC), paratype examined.

***Scapter calx* EARDLEY, 1996**

Scapter calx EARDLEY, 1996: 58-59, figs 31, 35-37. Holotype ♀ (Knersvlakte, South Africa) (SANC), paratype examined.

***Scapter capensis* (FRIESE, 1909)**

Polyglossa capensis FRIESE, 1909: 124-125, fig. 1. Lectotype ♂ [designated by EARDLEY 1996] (Steinkopf, South Africa) (ZMHB), examined.

Scapter merescens COCKERELL, 1944: 405-406, Lectotype ♀ [designated here] (Worcester, South Africa) (NHML), examined.

***Scapter carysomus* DAVIES, 2005**

Scapter carysomus DAVIES, in DAVIES et al. 2005: 155-158, figs 9-12. Holotype ♂ (Nieuwoudtville, South Africa) (SANC), examined.

***Scapter catoxys* DAVIES, 2005**

Scapter catoxys DAVIES, in DAVIES et al. 2005: 158-161, figs 13-17. Holotype ♂ (Springbok, South Africa) (AMGS), examined.

***Scapter chloris* EARDLEY, 1996**

Scapter chloris EARDLEY, 1996: 74-77, figs 73-76, 81. Holotype ♀ (Biedouw Valley, South Africa) (SANC), paratype examined.

***Scapter chrysomastes* DAVIES, 2005**

Scapter chrysomastes DAVIES, in DAVIES et al. 2005: 161-163, figs 18-22. Holotype ♂ (Richtersveld National Park, South Africa) (AMGS), examined.

***Scapter clarissimus* COCKERELL, 1936**

Scapter clarissima [sic!] COCKERELL, 1936a: 30-31. Holotype ♀ (Seeheim, Namibia) (NHML), examined.

Scapter pyretus DAVIES, in DAVIES & BROTHERS 2006: 170-173, figs 110-114. Holotype ♂ (Gaub Pass, Namibia) (AMGS), examined.

***Scapter divergens* (FRIESE, 1925)**

Polyglossa (Strandiella) divergens FRIESE, 1925: 515. Holotype ♀ (Willowmore, South Africa) (ZMHB), examined.

***Scapter eremathedon* DAVIES, 2005**

Scapter eremathedon DAVIES, in DAVIES et al. 2005: 163-166, figs 23-26. Holotype ♂ (Nieuwoudtville, South Africa) (SANC), examined.

***Scapter erubescens* (FRIESE, 1925)**

Polyglossa (Strandiella) erubescens FRIESE, 1925: 517. Holotype ♂ (Vanrhynsdorp, South Africa) (ZMHB), examined.

Scapter crassula [sic!] COCKERELL, 1932a: 452-453. Lectotype ♀ [designated by EARDLEY 1996] (Vanrhyns Pass, South Africa) (NHML), examined.

Scapter turneri COCKERELL, 1933b: 69-70. Holotype ♀ (Montagu, South Africa) (NHML), examined.

***Scapter exiguus* KUHLMANN, 2014**

Scapter exiguus KUHLMANN, 2014: 12-16, figs 6-7. Holotype ♀ (30 km N Vanrhynsdorp, South Africa) (SANC), examined.

***Scapter flavipes* (FRIESE, 1925)**

Polyglossa (*Strandiella*) *flavipes* FRIESE, 1925: 516-517. Lectotype ♀ [designated by EARDLEY 1996] (Mfongosi, South Africa) (ZMHB), examined.

***Scapter flavitarsis* COCKERELL, 1936**

Scapter flavitarsis COCKERELL, 1936b: 481. Lectotype ♂ [designated by EARDLEY 1996] (Cape Town, South Africa) (NHML), examined.

***Scapter flavostictus* COCKERELL, 1934**

Scapter flavostictus COCKERELL, 1934: 453-454. Holotype ♀ (Natal National Park, South Africa) (NHML), examined.

***Scapter fuliginatus* EARDLEY, 1996**

Scapter fuliginatus EARDLEY, 1996: 79-80, figs 81, 85-87. Holotype ♂ (Mamre, South Africa) (SAMC), examined.

***Scapter fuscipennis* (FRIESE, 1912)**

Strandiella fuscipennis FRIESE, 1912: 183. Lectotype ♀ [designated by EARDLEY 1996] (Kapland, South Africa) (ZMHB), examined.

***Scapter fynbosensis* KUHLMANN, 2020**

Scapter fynbosensis KUHLMANN, in KUHLMANN & FRIEHS 2020: 7-9, fig. 3. Holotype ♀ (15 km NW Nieuwoudtville, South Africa) (SAMC), examined.

***Scapter gessorum* KUHLMANN, 2014**

Scapter gessorum KUHLMANN, 2014: 16-18, fig. 8. Holotype ♀ (Willowmore, South Africa) (AMGS), examined.

***Scapter glaberrimus* (FRIESE, 1912)**

Strandiella glaberrima FRIESE, 1912: 183. Lectotype ♂ [designated by EARDLEY 1996] (Port Nolloth, South Africa) (SAMC), examined.

***Scapter glarea* DAVIES, 2005**

Scapter glarea DAVIES, in DAVIES et al. 2005: 166-168, figs 27-30. Holotype ♂ (30 km N Vanrhynsdorp, South Africa) (SANC), examined.

***Scapter hergi* KUHLMANN, 2020**

Scapter hergi KUHLMANN, in KUHLMANN & FRIEHS 2020: 9-11, fig. 4. Holotype ♂ (Roggeveld Mts, 2 km SE Farm Allemansdam, South Africa) (SAMC), examined.

***Scapter heterodoxus* (COCKERELL, 1921)**

Polyglossa heterodoxa COCKERELL, 1921: 204-205. Lectotype ♂ [designated by EARDLEY 1996] (Cape Town, South Africa) (SAMC), not examined.

***Scapter inexpectatus* KUHLMANN, 2014**

Scapter inexpectatus KUHLMANN, 2014: 20-22, fig. 10. Holotype ♀ (21 km E Lambert's Bay, South Africa) (CUIC), examined.

***Scapter keiskiensis* KUHLMANN, 2020**

Scapter keiskiensis KUHLMANN, in KUHLMANN & FRIEHS 2020: 11-13, fig. 5. Holotype ♀ (Roggeveld Mts, 1.5 km S Farm Allemansdam, South Africa) (SAMC), examined.

***Scapter leonis* COCKERELL, 1934**

Scapter leonis COCKERELL, 1934: 452-453. Lectotype ♀ [designated by EARDLEY 1996] (Cape Town, South Africa) (NHML), examined.

***Scapter luridus* EARDLEY, 1996**

Scapter luridus EARDLEY, 1996: 77-78, figs 77-81. Holotype ♂ (83 km N Grünau, Namibia) (SAMC), examined.

***Scapter luteistigma* KUHLMANN, 2014**

Scapter luteistigma KUHLMANN, 2014: 22-25, figs 11-12. Holotype ♀ (4.5 km NE Grootdrif, South Africa) (SANC), examined.

***Scapter mellonholgeri* KUHLMANN, 2020**

Scapter mellonholgeri KUHLMANN, in KUHLMANN & FRIEHS 2020: 14-17, figs 6, 7. Holotype ♂ (Roggeveld Mts, 2 km SE Farm Allemansdam, South Africa) (SAMC), examined.

***Scapter minutissimus* KUHLMANN, 2014**

Scapter minutissimus KUHLMANN, 2014: 25-27, fig. 13. Holotype ♂ (Leliefontein, South Africa) (SANC), examined.

***Scapter minutuloides* KUHLMANN, 2014**

Scapter minutuloides KUHLMANN, 2014: 27-29, fig. 14. Holotype ♀ (Kamiesberg Pass, South Africa) (RCMK), examined.

***Scapter minutus* KUHLMANN, 2014**

Scapter minutus KUHLMANN, 2014: 29-31, figs 15. Holotype ♀ (30 km N Calvinia, South Africa) (SANC), examined.

***Scapter nanus* KUHLMANN, 2014**

Scapter nanus KUHLMANN, 2014: 32-35, figs 16-17. Holotype ♂ (12 km NW Nieuwoudtville, South Africa) (SANC), examined.

***Scapter niger* LEPELETIER & SERVILLE, 1828**

Scapter niger LEPELETIER & SERVILLE, 1828: 404. Holotype ♂ (Cafreterie, South Africa) (MNHN), examined.

Strandiella longula FRIESE, 1912: 182, figs 1, 2. Lectotype ♂ (Kapstadt, South Africa) [designated by EARDLEY 1996] (SAMC), examined.

Scapter vandersteli COCKERELL, 1934: 453. Lectotype ♀ [designated by EARDLEY 1996] (NHML), examined.

Scapter subincertus COCKERELL, 1944: 405. Syntypes ♀ (Rapenburg, South Africa) (NHML), examined.

Scapter brunneipennis COCKERELL, 1944: 406-407. Holotype ♂ (Mossel Bay, South Africa) (NHML), examined.

***Scapter nigerrimus* KUHLMANN, 2014**

Scapter nigerrimus KUHLMANN, 2014: 35-37, fig. 18. Holotype ♀ (Woodlot, South Africa) (RCMK), examined.

***Scapter nigratarsis* KUHLMANN, 2014**

Scapter nigratarsis KUHLMANN, 2014: 37-41, figs 19, 20. Holotype ♂ (Worcester, South Africa) (NHML), examined.

***Scapter nitens* KUHLMANN, 2020**

Scapter nitens KUHLMANN, in KUHLMANN & FRIEHS 2020: 18-19, fig. 8. Holotype ♀ (7 km NE Steinkopf, South Africa) (SAMC), examined.

***Scapter nitidus* (FRIESE, 1909)**

Polyglossa nitida FRIESE, 1909: 125. Holotype ♂ (Steinkopf, South Africa) (ZMHB), examined.

Polyglossa opaca FRIESE, 1909: 125. Holotype ♂ (Steinkopf, South Africa) (ZMHB), examined.

***Scapter ornatipes* COCKERELL, 1933**

Scapter ornatipes COCKERELL, 1933b: 70. Holotype ♀ (Van Reenen, South Africa) (NHML), examined.

***Scapter oubergensis* KUHLMANN, 2020**

Scapter oubergensis KUHLMANN, in KUHLMANN & FRIEHS 2020: 20-22, fig. 9. Holotype ♀ (Ouberg Pass, 27 km SE Vanrhynsdorp, South Africa) (SAMC), examined.

***Scapter oxyaspis* DAVIES, 2005**

Scapter oxyaspis DAVIES, in DAVIES et al. 2005: 168-171, figs 31-35. Holotype ♂ (Nieuwoudtville, South Africa) (SANC), examined.

***Scapter pallidicinctus* COCKERELL, 1933**

Scapter pallidicincta [sic!] COCKERELL, 1933a: 206-208. Holotype ♂ (Oudtshoorn, South Africa) (NHML), examined.

***Scapter pallidipennis* (COCKERELL, 1920)**

Strandiella pallidipennis COCKERELL, 1920: 301-302. Holotype ♂ (Bulwer, South Africa) (NHML), examined.

***Scapter papkuilsi* KUHLMANN, 2014**

Scapter papkuilsi KUHLMANN, 2014: 41-44, figs 21-22. Holotype ♂ (20 km S Nieuwoudtville, South Africa) (SANC), examined.

***Scapter peringueyi* (COCKERELL, 1921)**

Polyglossa peringueyi COCKERELL, 1921: 205-206. Holotype ♀ (Knysna, South Africa) (SAMC), not examined.

***Scapter perpunctatus* COCKERELL, 1933**

Scapter perpunctata [sic!] COCKERELL, 1933a: 205-206. Holotype ♀ (Knysna, South Africa) (NHML), examined.

***Scapter pruinus* DAVIES, 2006**

Scapter pruinus DAVIES, in DAVIES & BROTHERS 2006: 166-170, figs 86, 103-109. Holotype ♂ (Lüderitz, Namibia) (SANC), examined.

***Scapter punctulatus* KUHLMANN, 2020**

Scapter punctatus KUHLMANN, 2014 (nec LEPELETIER & AUDINET-SERVILLE, 1828 = *Allodape punctata* [LEPELETIER & AUDINET-SERVILLE 1828]): 45-48, figs 23, 24. Holotype ♀ (Witwater, South Africa) (SANC), examined.

Scapter punctulatus KUHLMANN, in KUHLMANN & FRIEHS 2020: 26 (replacement name for *Scapter punctatus* KUHLMANN, 2014).

***Scapter pygmaeus* KUHLMANN, 2014**

Scapter pygmaeus KUHLMANN, 2014: 48-50, fig. 25. Holotype ♀ (Nieuwoudtville, South Africa) (SANC), examined.

***Scapter roggeveldi* KUHLMANN, 2014**

Scapter roggeveldi KUHLMANN, 2014: 50-54, figs 26, 27. Holotype ♂ (20 km W Sutherland, South Africa) (SAMC), examined.

***Scapter ruficornis* (COCKERELL, 1916)**

Strandiella ruficornis COCKERELL, 1916: 430. Holotype ♂ (Willowmore, South Africa) (NHML), examined.

Polyglossa (Strandiella) caffra FRIESE, 1925: 515. Holotype ♀ (Willowmore, South Africa) (ZMHB), examined.

***Scapter semirufus* COCKERELL, 1932**

Scapter semirufa [sic!] COCKERELL, 1932a: 452. Lectotype ♀ [designated by EARDLEY 1996] (Port Elizabeth, South Africa) (NHML), examined.

***Scapter sittybon* DAVIES, 2005**

Scapter sittybon DAVIES, in DAVIES et al. 2005: 171-173, figs 36-39. Holotype ♂ (40 km NE Vanrhynsdorp, South Africa) (SANC), examined.

***Scapter sphecodoides* (FRIESE, 1912)**

Strandiella sphecodoides FRIESE, 1912: 183-184, fig. 3. Lectotype ♀ (Kapstadt, South Africa) [designated by EARDLEY 1996] (SAMC), examined.

***Scapter spinipes* KUHLMANN, 2014**

Scapter spinipes KUHLMANN, 2014: 58-61, figs 30-31. Holotype ♂ (12 km NW Nieuwoudtville, South Africa) (SANC), examined.

***Scapter striatus* SMITH, 1853**

Scapter striatus SMITH, 1853: 121. Holotype ♀ (Cape, South Africa) (NHML), examined.
Polyglossa alfkeni FRIESE, 1925: 519. Lectotype ♂ [designated by EARDLEY 1996] (Algoa Bay, South Africa) (DNMNH), examined.
Scapter macrocephala [sic!] COCKERELL, 1933a: 204-205. Holotype ♀ (Nieuwoudtville, South Africa) (NHML), examined.

***Scapter thoracicus* (FRIESE, 1925)**

Polyglossa thoracica FRIESE, 1925: 518. Holotype ♀ (Ookiep, South Africa) (ZMHB), examined.

***Scapter tomentum* EARDLEY, 1996**

Scapter tomentum EARDLEY, 1996: 71-72, figs 62-66. Holotype ♂ (Klinghardtberge, Namibia) (SANC), examined.

***Scapter ulrikae* KUHLMANN, 2014**

Scapter ulrikae KUHLMANN, 2014: 61-65, figs 32-33. Holotype ♂ (12 km NW Nieuwoudtville, South Africa) (SANC), examined.

***Scapter viciniger* DAVIES, 2006**

Scapter viciniger DAVIES, in DAVIES & BROTHERS 2006: 174-175, figs 115-118. Holotype ♂ (Nieuwoudtville Flower Reserve, South Africa) (SANC), examined.

***Scapter whiteheadi* EARDLEY, 1996**

Scapter whiteheadi EARDLEY, 1996: 66, fig. 50. Holotype ♀ (6 km N Kamieskroon, South Africa) (SANC), examined.

***Scapter willemstrydomi* KUHLMANN, 2020**

Scapter willemstrydomi KUHLMANN, in KUHLMANN & FRIEHS 2020: 22-24, fig. 10. Holotype ♂ (Kamiesberg Mts, 5 km SE Leliefontein, South Africa) (SAMC), examined.

Nomen dubium***Scapter rufescens* (FRIESE, 1912)**

Strandiella rufescens FRIESE, 1912: 184-185. Holotype ♂ (Kapstadt, South Africa) (type depository unknown), not examined.

Scapter rufescens is here treated as a nomen dubium. The identity of this species is

unclear because type material could not be located. *Scrapter rufescens* belongs to the taxonomically difficult *S. nitidus*-complex but the description is too unspecific for an identification. According to the description the male was collected in Cape Town and from here in the same publication also *S. sphecodoides* was described but based on female specimens only. Hence, it is not unlikely that *S. rufescens* represents the male of *S. sphecodoides*.

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Zusammenfassung

Sämtliches verfügbares Typenmaterial der im südlichen Afrika heimischen Bienengattung *Scrapter* wurde gesichtet, um eine solide nomenklatorische und taxonomische Grundlage für laufende phylogenetische und blütenökologische Studien zu dieser Gattung zu schaffen. Basierend auf den Ergebnissen dieser Untersuchung wird ein aktualisiertes Verzeichnis der 77 als valide angesehenen Arten vorgelegt. Für zehn *Scrapter*-Arten werden die Angaben zum Verbleib der Holotypen korrigiert. *Scrapter rufescens* (FRIESE, 1912) wird hier als nomen dubium behandelt.

Scrapter merescens COCKERELL, 1944 ist bislang mit *S. leonis* COCKERELL, 1934 synonymisiert worden und wird hier als Synonym von *S. capensis* (FRIESE, 1909) erkannt. Ein Lectotypus wird für *S. merescens* festgelegt, um die Identität der Art zu fixieren. Weiterhin werden die folgenden Taxa synonymisiert: *Scrapter clarissimus* COCKERELL, 1936 = *S. pyretus* DAVIES, 2006 syn.nov. und *S. nitidus* (FRIESE, 1909) = *S. opacus* (FRIESE, 1909) syn.nov..

Die folgenden elf Taxa werden als selbständig angesehen und ihr Artstatus wiederhergestellt: *Scrapter braunsianus* (FRIESE, 1925) spec.rev., *S. clarissimus* COCKERELL, 1936 spec.rev., *S. divergens* (FRIESE, 1925) spec.rev., *S. flavitarsis* COCKERELL, 1936 spec.rev., *S. fuscipennis* (FRIESE, 1912) spec.rev., *S. glaberrimus* (FRIESE, 1912) spec.rev., *S. ornatipes* COCKERELL, 1933 spec.rev., *S. pallidicinctus* COCKERELL, 1933 spec.rev., *S. perpunctatus* COCKERELL, 1933 spec.rev., *S. semirufus* COCKERELL, 1932 spec.rev. und *S. sphecodoides* (FRIESE, 1912) spec.rev.

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