On taxonomy and distribution of the genus Carpelimus Leach, 1819 (Coleoptera: Staphylinidae: Oxytelinae) of Nepal

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New distributional records from Nepal for thirteen species of the genus *Carpelimus* Leach, 1819 are presented. Six species are new for the fauna of Nepal: *Carpelimus (Bucephalinus) laticeps* (Cameron, 1930); *Carpelimus (s.str.) congraus* (Cameron, 1930); *Carpelimus (s.str.) indicus* (Kraatz, 1859); *Carpelimus (Trogophloeus) bengalensis* (Cameron, 1930); *Carpelimus (Trogophloeus) corticinus* (Gravenhorst, 1806); *Carpelimus (Trogophloeus) palitans* (Cameron, 1930). Two new combinations are proposed: *Carpelimus (Bucephalinus) kathmanduensis* Herman, 2001, comb. n. and *Carpelimus (Bucephalinus) nepalicus* (Coiffait, 1982), comb. n.

Key words: Coleoptera, Oxytelinae, *Carpelimus*, Nepal, new combinations, new records.

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INTRODUCTION

The genus *Carpelimus* Leach, 1819 is one of the largest genera within the subfamily Oxytelinae Fleming, 1821; it includes about 500 species in the fauna of the world and is widely distributed in all zoogeographical areas. The majority of species of the genus inhabit damp ground in the supralittoral, where they can be very abundant and play an important role in the functioning of ecological systems.

According to the catalogue of Smetana (2004), twelve species are known in Nepal (the names of species and subgenera are listed according to this catalogue): *Carpelimus (Boopinus) insularis* (Kraatz, 1858); *C. (Boopinus) nigrita* (Wollaston, 1857); *C. (Boopinus) subpolitus* (Coiffait, 1982); *C. (Paraboopinus) travel* (Coiffait, 1982); *C. (s. str.) kathmanduensis* Herman, 2001; *C. (Taenosoma) apterus* (Coiffait, 1982); *C. (Taenosoma) bertrandii* (Coiffait, 1982); *C. (Taenosoma) brachypterus* (Coiffait, 1982); *C. (Taenosoma) nepalicus* (Coiffait, 1982); *C. (Troginus) despectus* (Baudi di Selve, 1870); *C. (Troginus) exiguus* (Erichson, 1839); *C. (Trogophloeus) vagans* (Cameron, 1930). Seven species from this list are described and known only from the Nepal. The level of endemism is compound 58%.
With the account of the synonymy of the generic groups in *Carpelimus* (Herman, 1970: 389, 390; Gildenkov, 2002: 1462, 1463; Gildenkov, 2002a: 1275; Gildenkov, 2013a: 243) it is necessary to recognize, that subgenera *Boopinus*, *Paraboopinus* and *Taenosoma* are not valid now.

Some combinations of taxonomical names were changed during studies. Several species were synonymized (Gildenkov, 2014: 300, 304, 308): *C.* (s. str.) *peregrinus* (Cameron, 1919) = *C.* (s. str.) *subpolitus* (Coiffait, 1982), syn.; *C.* (*Troginus*) *atomus* (Saulcy, 1864) = *C.* (*Troginus*) *travei* (Coiffait, 1982), syn.; *C.* (*Trogophloeus*) *brachypterus* (Coiffait, 1982) = *C.* (*Trogophloeus*) *apterus* (Coiffait, 1982), syn. At the present time *C. nigrita* is differently understood (Schülke, 2004: 398; Gildenkov, 2010: 12; 2014: 299) as both the nominative subspecies *C.* (s. str.) *nigrita nigrita* (Wollaston, 1857), known only on the holotype from the archipelago Madeira (island Porto Santo), and also the widespread subspecies *Carpelimus* (s. str.) *nigrita anthracinus* (Mulsant and Rey, 1861). To assume the discovery of *C. nigrita nigrita* in Nepal (taking into account its incorrect understanding) will be strange as there are no data from Nepal for *C. nigrita anthracinus*.

Thus, ten species of the genus *Carpelimus* are known from the territory of Nepal, of which four species were known only from this country (40%).

**MATERIAL AND METHODS**

This paper is based on specimens which are deposited in the following collections: BMNH = British Museum of Natural History (London, Great Britain); cMG = private collection of M. Gildenkov (Smolensk, Russia); cVA = private collection of V. Assing (Hannover, Germany); FMNH = Field Museum of Natural History (Chicago, the USA); HNHM = Hungarian Natural History Museum (Budapest, Hungary); MNHN = Muséum National d’Histoire Naturelle (Paris, France); NHMW = Naturhistorisches Museum Wien (Vienna, Austria); NKME = Naturkundemuseum Erfurt (Erfurt, Germany); SDEI = Senckenberg Deutsches Entomologisches Institut (Müncheberg, Germany); SMNS = Staatliches Museum für Naturkunde in Stuttgart (Stuttgart, Germany).

In the present study standard methods were used for the taxonomic research of the insects; the preparations were made with the use of the binocular microscope MBS-10. The genital preparations were processed using 10% KOH and fixed in euparal later.

**RESULTS**

*Carpelimus (Bucephalinus) kathmanduensis* Herman, 2001 comb. n.  
(*Trogophloeus (Carpalimus) nepalicus* Coiffait, 1984, nom. praeocc.; *C. (s.str.) kathmanduensis* Coiffait, 1984: 385)  


**Remarks.** This species is known only from the Nepal.

*Carpelimus (Bucephalinus) laticeps* (Cameron, 1930)  


**Remarks.** The lectotype was designated from India (Gildenkov, 2013: 57). The species is known from the Oriental region (our data): India, Indonesia (Sumatra), Nepal, Singapore, Sri Lanka, Thailand, Vietnam. It is here reported from Nepal for the first time.
Carpelimus (Bucephalinus) nepalicus (Coiffait, 1982) comb. n. (C. (Taenosoma) nepalicus) 
Coiffait, 1982: 161


Remarks. The species was known from Nepal. It is here reported from Vietnam for the first time. The last record confirms the Oriental distribution of the species.

Carpelimus (s.str.) congruus (Cameron, 1930)

Material. Nepal: 3 males: “NEPAL, Prov. Narayani, Sauraha, Rapti River Ufer, 180 m NN, 27°34′80″ N/ 84°29′49″ E, LF, 18.IV.2000, leg. A.Weigel” (NKME; 1 male – cMG); 1 male, 2 females: “NEPAL: Chitwan NP Narayani Ganga, 18.4.1995 27°33′N 84°06′E 150m, leg. Malicky” (NHMW).

Remarks. The lectotype is designated from India (Gildenkov, 2010: 13). The species is widely distributed in the Oriental region (Gildenkov, in lit.): Andaman islands, Cambodia, China (Fuzhou, Guangdong, Guangxi, Guizhou, Hongkong, Hunan, Yunnan, Zhejiang), India, Indonesia (Kalimantan, Sumatra, Java), Japan (Okinawa), Laos, Malaysia (including Kalimantan), Myanmar, Nepal, Philippines, Sri Lanka, Thailand, Taiwan, Vietnam. In the Palaearctic the species known only from Japan (Gildenkov, 2001: 77), China (N-Sichuan) (Gildenkov, 2009: 29), and Pakistan (Gildenkov, 2012: 354). C. indicus is here reported for Nepal for the first time.


Coiffait, 1982: 43 (as nigrita Wollaston, 1857)

Remarks. The species was described from Greece; the neotype was designated from southern Spain (Gildenkov, 2007: 1076). It is well known from the Palaearctic: Morocco, Algeria, Tunis, Sudan (on border with Egypt), Spain, France, Italy (including Sicily and Sardinia), Greece, Bul-
garia, Moldova, Lebanon, Turkey, Iran, Iraq, Afghanistan, Russia (southern Dagestan), Azerbaijan, Georgia, Tajikistan, Turkmenistan, Uzbekistan (Gildenkov, 2001: 94; 2009: 29). It is known from the Tropical Africa (Gildenkov, 2007: 1078; 2007b: 898): Angola, Botswana, Chad, Congo, Ethiopia, Ghana, Kenya, Madagascar, Mali, Namibia, Nigeria, the Republic of South Africa, Senegal, Sudan, Tanzania, Uganda, Zambia, Zimbabwe. Recently it was recorded from Pakistan, Portugal and Kirghizia (our data). Any data about the distribution of this species in south-eastern Asia are not present. The record of C. insularis based on a single specimen by Coiffait (1982: 43) from Nepal cannot be confirmed herein and it seems to be doubtful, it more probably belonged to the widely distributed in Nepal and rather variable C. peregrinus.


Coiffait, 1982: 43, 158 (as Trogophloeus (Boopinus) subpolitus)


Nepal (as peregrinus): 1 female: “NEPAL, P. Narayani, D. Chitwan, Sauraha, Hotel Riversid, 190 m NN – 26.VI.2007, LFN 27°34’55”, E 84°29’58” leg. M. Hartmann, #54” (NKME); 3 males, 1 female, 14 specimens: “NEPAL c. 2001 Prov. Narayani Sauraha, Rapti River, LF, 180m leg. Kopetz 15.VII.” “27°34’51”N 84°29’30”E” (NKME; 1 male – cMG); 1 male: “NEPAL, Prov. Narayani, Sauraha, Rapti River, 180 m, 27°34’80”N/ 84°29’49”E, 14-15.VII.2001, leg. Weigel Ufer LF” (cMG); 1 male, 1 female: “NEPAL, Prov. Narayani, Sauraha, Rapti River, 27°34’51”N/ 84°29’30”E, 14-15.VII.2001, 180 m riverside, leg. Kopetz” (NKME); 1 male, 3 females: “NEPAL, Kathmandu, N Bagmati River, 1300 m NN, 06.VI.1995, leg. Hartman” (NKME); 1 female: “NEPAL, Kathmandu Thamel, Hotel Norbu Lhinka, LF; 23.IX.1996, leg. Hartman” (NKME); 2 females: “NEPAL, Prov. Bheri, 15 km W Kusum, 28°02’36”N/ 81°34’35” E, 11-12.07.2001, LF, 170 m, townside, leg. A. Kopetz” (NKME); 1 male: “NEPAL, Prov. Narayani, Sauraha, Rapti River, 180 m LF, 27°34’80”N/ 84°29’49”E, 18.IV.2000, Parti-Ufer, leg. Weigel” (NKME); Any data about the distribution of this species in south-eastern Asia are not present. The record of C. insularis based on a single specimen by Coiffait (1982: 43) from Nepal cannot be confirmed herein and it seems to be doubtful, it more probably belonged to the widely distributed in Nepal and rather variable C. peregrinus.
**Remarks.** The lectotype is designated from Sri Lanka (Gildenkov, 2010: 14). The species is known from the Oriental region: Andaman islands, Cambodia, China (Shaozwu), India, Indonesia (Kalimantan, Sumatra, Java), Malaysia (including Kalimantan), Myanmar, Nepal, Singapore, Taiwan, Thailand, Vietnam (our data). Recently it is recorded from Seychelles islands (our data). As *C. siamensis* it is known from the Palaearctic from Afghanistan (Gildenkov, 2009: 252) and Pakistan (Gildenkov, 2012: 356).


**Remarks.** The species is widely distributed in the Oriental region: China (Guangdong, Guizhou, Hongkong, Hubei, Hunan, Yunnan, Zhejiang), India, Indonesia (Kalimantan, Sumatra, Java), Japan (Okinawa), Cambodia, China (including Kalimantan), Nepal, Philippines, Sri Lanka, Taiwan, Thailand, Vietnam (our data). *C. atomus* is known from the Palaearctic: Cyprus, Syria (Gusarov, 1997: 280), Egypt, Libya, Saudi Arabia (Gusarov, 1997: 280; Gildenkov, 2001: 277; 2003: 380; 2003a: 97; 2009a: 252), Iraq (Gildenkov, 2001: 277; 2003: 380; 2003a: 97), China (Hebei), Japan, South Korea (Gildenkov (as *formosanus*), 2001: 282, 2003: 381; 2003a: 97), Morocco (Gildenkov (as *maroccanus*), 2001: 280, 2003: 381; 2003a: 97), Turkey (Gildenkov, 2007a: 1318; 2007c: 910). Besides that, the species is many times was recorded from the Palaearctic: Cyprus, Syria (Gusarov, 1997: 280), Egypt, Libya, Saudi Arabia (Gusarov, 1997: 280; Gildenkov, 2001: 277; 2003: 380; 2003a: 97; 2009a: 252), Iraq (Gildenkov, 2001: 277; 2003: 380; 2003a: 97), China (Hebei), Japan, South Korea (Gildenkov (as *formosanus*), 2001: 282, 2003: 381; 2003a: 97), Morocco (Gildenkov (as *maroccanus*), 2001: 280, 2003: 381; 2003a: 97), Turkey (Gildenkov, 2007a: 1318; 2007c: 910), Afghanistan (Gildenkov, 2009a: 252) and Pakistan (Gildenkov, 2012: 356). Recently it was recorded from Canary islands, China (N-Sichuan, Peking, Shaanxi), Malta, Madiera, Spain, Tunisia (our data). Such distribution confirms the species more likely to belong to the fauna of tropical Africa and Oriental area, than to the fauna of Palaearctic.

**Carpelimus (Troginus) despectus** (Baudi di Selve, 1870) ([*despectus* Mulsant & Rey, 1870; [*despectus* var. *leederi* Bernhauer, 1940])

Coiffait, 1982: 44
Remarks. The species is known from the Palaearctic: Austria, Germany, Italy, Poland, Russia (the West and the Center of the European part (Moscow Area, Smolensk Area, Yaroslavl Area), Western Siberia (Tyumen Area)), Switzerland (Gildenkov, 2001: 271; 2009a: 253), Russia (Eastern Siberia (Irkutsk Area)) (Gildenkov & Shavrin, 2012: 53), Byelorussia (Gildenkov & Derunkov, 2012: 62). Recently it was recorded for the Ukraine (our data). It is a species difficult to identify. To use faunistic data of other authors about _C. despectus_ outside Europe must be followed with great care. The record of _C. despectus_ from Nepal cannot be considered confirmed and it seems to me doubtful because a single specimen of _C. despectus_, specified by Coiffait more probably belonged to the widely distributed in Nepal and rather morphologically variable _C. atomus_.

_Carpelimus (Troginus) exiguis_ (Erichson, 1839)  
(_glabricollis_ Motschulsky, 1860; _luteicornis_ Mulsant & Rey, 1878; _aberrans_ Rosenhauer, 1856)

Coiffait, 1982: 44

Remarks. The lectotype was designated from Europe (Gildenkov, 1998: 127). The species is widely distributed in Palaearctic: Austria, Bulgaria, Georgia, Germany, Italy, Kazakhstan, Moldova, Romania, Russia (all territory, including the West and the Center of the European part, the Volga region, Northern Caucasus, Eastern Siberia (Krasnoyarsk Territory, Irkutsk Area), the Russian Far East (Sakhalin, Maritime Province)), Turkey, Ukraine (Gildenkov, 2001: 265; 2009a: 253; Gildenkov & Shavrin, 2012: 54), Byelorussia (Gildenkov & Derunkov, 2012: 62). Recently it was recorded from Spain, Kirghizia and Tadjikistan (our data). It is difficult for identification species. To use faunistic data of other authors about _C. exiguis_ outside Europe must be followed with great care. The record of species based on the single specimen for Nepal by Coiffait (1982) is not confirmed here and seems to be doubtful, it is probably _C. atomus_ which is very variable morphologically. Previously, the distribution of _C. exiguis_ was understood as worldwide, now this does not have any confirmations, it is obvious that _C. exiguis_ did not differ with _C. atomus_.

_Carpelimus (Trogophloeus) bengalensis_ (Cameron, 1930)


Remarks. The lectotype was designated from India (Gildenkov, 2013: 54). _C. bengalensis_ is here reported for Nepal for the first time.

_Carpelimus (Trogophloeus) bertrandi_ (Coiffait, 1982)

Coiffait, 1982: 44, 159


Remarks. It is known only from Nepal.

_Carpelimus (Trogophloeus) brachypterus_ (Coiffait, 1982)


Remarks. It is known only from Nepal.

Carpelimus (Trogophloeus) corticinus (Gravenhorst, 1806) (atratus Stephens, 1834; minusimus Runde, 1835; dispersepunctatus Scheerpeltz, 1947; nanus Wollaston, 1854)


Remarks. The lectotype was designated from Europe (Gildenkov, 2004: 542; 2004a: 612). The species is widely distributed in Palaearctic region: Albania, Austria, Azerbaijan, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, France, Georgia, Germany, Great Britain, Greece, Hungary, Iraq, Italy, Japan, Kazakhstan, the Canary islands, Crete, Latvia, Lithuania, Maderia, Morocco, Moldova, Mongolia, Northern Korea, Poland, Russia (all territory, including the European part, Caucasus, Eastern Siberia and the Far East), Serbia, Spain, Sweden, Tadjikistan, Tunis, Turkmenistan, Turkey, Ukraine, Uzbekistan (Gildenkov, 2001: 176; Gildenkov & Shavrin, 2012: 54), Armenia (Gildenkov, 2009a: 240), Byelorussia (Gildenkov & Derunkov, 2012: 61). Recently it was recorded from Afghanistan, China (Heilungkiang, Peking, Shaanxi), Denmark, Egypt, Iran, Kirghizia, Lebanon (our data). It is known from the Oriental area: China (Yunnan), Nepal and Northern India. C. corticinus is here reported for Nepal for the first time.

Carpelimus (Trogophloeus) palitans (Cameron, 1930) (gratus Cameron, 1930 – syn. in Gildenkov, 2014: 309)
C. vagans refer to a numerous group of species “taprobanae” which are very difficult to determine (Gildenkov, 2013b (2014): 292). The discovery of C. vagans in Nepal is quite probable, but cannot be considered to be confirmed at the present time.

DISCUSSION.

Thus, twelve species of the genus Carpelimus are known from Nepal. The finding of Carpelimus (Trogophloeus) vagans (Cameron, 1930) in Nepal is very expected.

Six species are new for the fauna of Nepal: Carpelimus (Bucephalinus) laticeps (Cameron, 1930); Carpelimus (s.str.) congruus (Cameron, 1930); Carpelimus (s.str.) indicus (Kraatz, 1859); Carpelimus (Trogophloeus) bengalensis (Cameron, 1930); Carpelimus (Trogophloeus) corticinus (Gravenhorst, 1806); Carpelimus (Trogophloeus) palitans (Cameron, 1930). Two species have been known for Nepal before, but under other names that have been transferred by the author to synonyms: Carpelimus (s. str.) peregrinus (Cameron, 1919) = Trogophloeus (Boopinus) subpolitus Coiffait, 1982, syn.; Carpelimus (Troginus) atomus (Sauley, 1864) = Trogophloeus (Paraboopinus) travei Coiffait, 1982, syn.

Three species from thirteen are known only from Nepal: Carpelimus (Bucephalinus) kathmanduensis Herman, 2001; Carpelimus (Trogophloeus) bertrandii (Coiffait, 1982); Carpelimus (Trogophloeus) brachypterus (Coiffait, 1982). One species (C. corticinus) has a palaearctic distribution, other species (C. atomus) is widely distributed in Eastern and Afrotropical regions, and penetrates from the south to the Palaearctic. Other eight species (six species from them are recorded here for Nepal for the first time) belong to the Oriental fauna. It confirms our opinion that fauna of the species of the genus Carpelimus of Nepal should be considered within the Oriental region.


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