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Studies of Tiger Beetles. CLXIII. New records from Singapore (Coleoptera: Cicindelidae)

by Fabio CASSOLA

Abstract

Nine tiger beetle species are here examined which were collected in Singapore during several recent missions of the Royal Belgian Institute of Natural Sciences (RBINS). *Callytron doriai* (W. HORN, 1897) represents a previously poorly known species, whose re-capture is particularly interesting. Moreover, seven collected species represent new country records. The full checklist is provided of the 46 tiger beetle species known so far from Singapore or from the adjacent areas (Sumatra and peninsular Malaysia, thus possibly occurring in Singapore as well).

Résumé

Les neuf espèces de Cicindélides qui sont étudiées ici ont été recueillies à Singapour lors de plusieures missions récemment menées par l'Institut Royal des Sciences Naturelles de Belgique (IRSNB). *Callytron doriai* (W. HORN, 1897) represente une espèce peu connue, dont la recapture à Singapour est particulièrement intéressante. En plus, sept des espèces recoltées sont des acquisitions nouvelles pour le pays. Une liste complète est donnée pour les 46 espèces connues jusqu'ici de Singapour ou des territoires avoisinants (Sumatra et Malaisie continentale, donc pouvant exister à Singapour aussi).

Key words: Coleoptera, Cicindelidae, Singapore, checklist.

Introduction

Singapore is a small independent country, consisting of the main island and many much smaller ones, lying between Sumatra and peninsular Malaysia (Malacca). Singapore was once fully covered in tropical rainforest, and though little is left of its wilderness there are still about two thousands hectares of primary and secondary forest (ROWTHORN et al., 2001). The great Victorian naturalist, Alfred Russel Wallace, visited Singapore several times from 1854 to 1862, and wrote that "insects were exceedingly abundant and very interesting" and that "in about two months [he] obtained no less than 700 species of beetles" (WALLACE, 1869; SOCHACZEWSKI, 2000). Moreover, he stated that "almost all these were collected in one patch of jungle, not more than a square mile in extent, and in all [his] subsequent travels in the East [he] rarely if ever met with so productive a spot".

Despite of that, it seems that Singapore has not been much visited by field naturalists. For example, its tiger beetle fauna is still surprisingly poorly known, as just eleven species have positively been recorded from this country to date (Table I), including the seven ones which are recorded in the present paper for the first time. As to the supposed tiger beetle specimen discovered by CHUNG et al. (2005), buried into the conjunctiva of the right eye of a patient in Singapore, it was not apparently a tiger beetle species. Therefore, it was good that, thanks to the courtesy of Mr. Alain Drumont (Royal Belgian Institute of Natural Sciences, Bruxelles, Belgium), I have had the opportunity of examining the tiger beetle specimens collected by Patrick Grootaert in Singapore during several field research missions that the above mentioned Institute (RBINS) carried out in the years 2003 and 2005. The main localities where the specimens come from were: Bukit Timah, primary rain forest; Nee Soon (Upper Peirce Reservoir), marshland in a acidic swamp forest; Sime forest, secondary rain forest; Sungei Buloh, mangrove and Pulau Ubin (Chek Jawa), mangrove. This material adds a few but interesting data about the tiger beetle species occurring in Singapore. A checklist of all those recorded so far from this country, or possibly existing there because recorded from both the adjacent areas (Sumatra and peninsular Malaysia) (WIESNER, 1986, 1992; NAVIAUX, 1987, 1991), is given in Table I.

Voucher specimens are deposited in the Zoological Reference Collection (ZRC) of the Raffles Museum of Biodiversity Research, National University of Singapore. The others are either in the collection of the Royal Belgian Institute of Natural Sciences (RBINS) or in author's collection (FCC).

Table 1 — Cheklist of the tiger beetles (Coleoptera: Cicindelidae) of Singapore.

Species[1]	**References**[2]
1. ***Tricondyla (Tricondyla) brunnea* Doktouroff, 1883**	CASSOLA, this paper
2. *Tricondyla (Tricondyla) wallacei* Thomson, 1857	NAVIAUX 2002 (?)
3. *Tricondyla (Tricondyla) beccarii* Gestro, 1874	NAVIAUX, 2002 (?)[3]
4. *Protocollyris brevilabris* (W. Horn, 1893)	NAVIAUX 1995 (?)
5. *Neocollyris (Brachycollyris) purpureomaculata* (W. Horn, 1922)	NAVIAUX 1995 (?)
6. *Neocollyris (Neocollyris) bonellii* (Guérin-M., 1834)	NAVIAUX 1995 (?)
7. *Neocollyris (Neocollyris) fuscitarsis* (Schmidt-G., 1846)	WIESNER 1986 (?)
8. *Neocollyris (Neocollyris) moesta* (Guérin-M., 1846)	WIESNER 1986; Naviaux 2004 (?)
9. *Neocollyris (Neocollyris) cruentata* (Schmidt-G., 1846)	NAVIAUX 1995 (?)
10. *Neocollyris (Neocollyris) dimidiata* (Chaudoir, 1864)	NAVIAUX 1995 (?)
11. *Neocollyris (Neocollyris) chloroptera* (Chaudoir, 1860)	NAVIAUX 1995 (?)
12. *Neocollyris (Neocollyris) thomsoni* (W. Horn, 1894)	NAVIAUX 1995 (?)
13. *Neocollyris (Orthocollyris) crassicornis* (Dejean, 1825)	NAVIAUX 1995 (?)
14. ***Neocollyris (Leptocollyris) linearis* (Schmidt-G.) ssp. *tenuicornis* (Chaudoir, 1864)**	NAVIAUX 1995[4]
15. *Neocollyris (Leptocollyris) xanthoscelis* (Chaudoir, 1864)	NAVIAUX 1995 (?)
16. *Neocollyris (Leptocollyris) subtilis* (Chaudoir, 1863)	NAVIAUX 1995 (?)
17. *Neocollyris (Leptocollyris) variitarsis* (Chd.) ssp. *minuta* Naviaux, 1995	NAVIAUX 1995 (?)
18. ***Neocollyris (Stenocollyris) leucodactyla* (Chaudoir, 1860)**	CASSOLA, this paper
19. *Neocollyris (Stenocollyris) dohertyi* (W. Horn, 1895)	NAVIAUX 1995 (?)
20. *Neocollyris (Stenocollyris) sarawakensis* (Thomson, 1857)	NAVIAUX 1995 (?)
21. *Neocollyris (Stenocollyris) oblita* Naviaux, 1995	NAVIAUX 1995 (?)
22. *Neocollyris (Leiocollyris) richteri* (W. Horn, 1901)	NAVIAUX 1995 (?)
23. *Neocollyris (Pachycollyris) aptera* (Lund) ssp. *apicalis* (Chaudoir, 1864)	NAVIAUX 1995 (?)
24. *Collyris robusta* Dohrn, 1891	NAVIAUX 1995 (?)
25. *Prothyma (Genoprothyma) heteromalla* (Macleay, 1825)	RIVALIER 1964; WIESNER 1992 (?)
27. *Heptodonta analis* (Fabricius, 1801)	WIESNER 1992 (?)
28. *Therates rugulosus* W. Horn, 1900	WIESNER 1992 (?)
29. ***Therates chenelli* Bates, 1878**	CASSOLA, this paper
30. ***Therates fleutiauxi* W. Horn, 1898**	WIESNER 1986, 1992
31. ***Therates batesii* Thomson ssp. *testaceipennis* W. Horn, 1924**	WIESNER 1986
32. ***Therates dimidiatus* Dejean *ssp. dejeanii* Chaudoir, 1865**	WIESNER 1986 (sub ssp. *wallacei* Thms.)
33. *Calomera a. angulata* (Fabricius, 1798)	WIESNER 1992 (?)[5]
34. *Calomera f. funerea* (Macleay, 1825)	WIESNER 1992 (?)[5]
35. ***Cosmodela a. aurulenta* (Fabricius, 1801)**	CASSOLA, this paper
36. *Lophyra (Lophyra) fuliginosa* (Dejean, 1826)	WIESNER 1992 (?)
37. *Lophyra (Spilodia) striolata* (Illiger, 1800)	WIESNER 1992 (?)
38. ***Cylindera (Verticina) versicolor* (Macleay, 1825)**	CASSOLA, this paper
39. *Cylindera (Leptinomera) catoptroides* (W. Horn, 1892)	CASSOLA 1983; WIESNER 1992 (?)
40. *Cylindera (Ifasina) foveolata* (Schaum, 1863)	WIESNER 1992 (?)

[1] Species marked in bold have been recorded from Singapore itself.

[2] All the species not in bold and marked with a questionmark (?) in the reference column are known to occur both in Sumatra and in peninsular Malaysia (or in Thailand), thus possibly occurring in Singapore as well.

[3] Known to occur in Sumatra, but a subspecies *cassolai* was described from peninsular Malaysia (NAVIAUX 1995).

[4] Lectotype collected in Singapore by A.R. Wallace (NAVIAUX 1995).

[5] Species inhabiting the sandy banks of the large rivers, thus hardly occurring in Singapore.

41. *Cylindera (Ifasina) viduata* (Fabricius, 1801)	WIESNER 1986, 1992 (?)
42. ***Cylindera (Ifasina) discreta* (Schaum) ssp. *subfasciata* (W. Horn, 1892)**	CASSOLA, this paper
43. *Cylindera (Eugrapha) minuta* (Olivier, 1790)	WIESNER 1986, 1992 (?)
44. *Myriochila (Myriochila) specularis* (Chaudoir, 1865)	WIESNER 1992 (?)
45. *Hypaetha biramosa* (Fabricius, 1801)	WIESNER 1986, 1992 (?)
46. ***Callytron doriai* (W. Horn, 1897)**	CASSOLA, this paper

List of species

1. Tricondyla (Tricondyla) brunnea Dokhtouroff, 1883

MATERIAL: Sime Forest, 14.X.05, Malaise trap 4, sample no. 25387, P. Grootaert, 1 ♀ (RBINS).

This species was recently reinstated as a full species, close to *T. cyanea* but distinct from it, by NAVIAUX (2002). It was known so far from Sumatra (and from Borneo and Sulawesi as well) and from peninsular Malaysia, so the above specimen represents a new country record for Singapore.

2. Neocollyris (Leptocollyris) linearis (Schmidt-G.) ssp. *tenuicornis* (Chaudoir, 1864)

MATERIAL: Nee Soon, swamp forest, 19.IV.05, Malaise trap 3, sample no. 25069, P. Grootaert, 1 ♂ (RBINS); *ibid.*, swamp forest, 27.IV.05, Malaise trap 3, sample no. 25092, P. Grootaert, 1 ♂ (RBINS).

This species as a whole is widely distributed in South East Asia from Myanmar (Burma) eastwards to southern China, and moreover its subspecies *tenuicornis* is known to occur both in Sumatra (where a ssp. *beccarii* W. Horn, 1893 is known too) and in peninsular Malaysia (NAVIAUX 1995). Even more, the female lectotype specimen of ssp. *tenuicornis* was actually collected in Singapore by A.R. Wallace (NAVIAUX, 1995).

3. Neocollyris (Stenocollyris) leucodactyla (Chaudoir, 1860) (8)

MATERIAL: Nee Soon, swamp forest, 16.III.05, sample no. 25017, P. Grootaert, 1 ♀ (RBINS); *ibid.*, swamp forest, 5.IV.05, Malaise trap 2, sample no. 25047, P. Grootaert, 1 ♀ (RBINS) ; *ibid.*, swamp forest, 11.IV.05, Malaise trap 3, sample no. 25059, P. Grootaert, 2 ♂♂ (RBINS), 1 ♂ (ZRC), 1 ♂ (FCC); *ibid.*, swamp forest, 27.IV.05, Malaise trap 3, sample no. 25092, P. Grootaert, 1 ♂ (RBINS) 1 ♂ (FCC); *ibid.*, swamp forest, 6.V.05, Malaise trap 3, sample no. 25140, P. Grootaert, 1 ♂ (RBINS), 1 ♂ (ZRC); *ibid.*, swamp forest, 20.V.05, Malaise trap 3, sample no. 25146, P. Grootaert, 1 ♂ (RBINS), 1 ♂ (ZRC), 1 ♂ (FCC); *ibid.*, forest, 3.XII.05, Malaise trap 2, sample no. 25438, P. Grootaert, 1 ♀ (RBINS). Bukit Timah, 27.VII.05, Malaise trap, sample no. 25274, P. Grootaert, 1 ♂ (RBINS).

This species is commonly found in Sumatra and Borneo (NAVIAUX, 1995) and its occurrence in Singapore was perhaps predictable. Nevertheless, the above specimens represent a new country record.

4. Therates chenelli Bates, 1878

MATERIAL: Nee Soon, swamp forest, 5.IV.05, Malaise trap 3, sample no. 25048, P. Grootaert, 1 ♂ (RBINS).

This small species is known to inhabit the area between north-eastern India (Nagaland) to Burma, Thailand and peninsular Malaysia (WIESNER, 1988, 1992). However, the above mentioned specimen clearly represents a new country record.

5. Therates dimidiatus Dejean ssp. *dejeanii* Chaudoir, 1865

MATERIAL: Nee Soon, stream, 11.XII.03, Malaise trap, P. Grootaert, 3 ♂♂ 1 ♀ (RBINS) 1 ♂ (FCC); *ibid.*, swamp forest, 16.III.05, sample no. 25016, P. Grootaert, 5 ♂♂ 2 ♀♀ (RBINS), 1 ♀ (ZRC), 1 ♂ (FCC); *ibid.*, swamp forest, 16.III.05, sample no. 25017, P. Grootaert, 1 ♂ (ZRC); *ibid.*, swamp forest, Malaise trap 1, sample no. 25028, P. Grootaert, 1 ♂ 1 ♀ (RBINS); *ibid.*, swamp forest, sample no. 25029, P. Grootaert, 1 ♀ (RBINS); *ibid.*, swamp forest, 5.IV.05, Malaise trap 1, sample no. 25046, P. Grootaert, 1 ♂ (RBINS); *ibid.*, swamp forest, 5.IV.05, Malaise trap 2, sample no. 25047, P. Grootaert, 1 ♂ 2 ♀♀ (RBINS), 1 ♀ (ZRC); *ibid.*, swamp forest, 5.IV.05, Malaise trap 3, sample no. 25048, P. Grootaert, 1 ♂ (RBINS); *ibid.*, swamp forest, 06.V.05, Malaise trap 3, sample no. 25140, P. Grootaert, 1 ♂ (RBINS); *ibid.*, swamp forest, 11.IV.05, Malaise trap 3, sample no. 25059, P. Grootaert, 1 ♀ (RBINS); *ibid.*, swamp forest, 20.V.05, Malaise trap 3, sample no. 25146, P. Grootaert, 1 ♂ 2 ♀♀ (RBINS), 1 ♂ 1 ♀ (ZRC), 1 ♂ 1 ♀ (FCC); *ibid.*, swamp forest, 10.VI.05, Malaise trap 3, sample no.

25155, P. Grootaert, 1 ♂ 1 ♀ (RBINS), 1 ♂ 1 ♀ (ZRC); *ibid.*, swamp forest, 16.IX.05, Malaise trap 1, sample no. 25349, P. Grootaert, 1 ♀ (RBINS); *ibid.*, swamp forest, 14.X.05, Malaise trap 5, sample no. 25392, P. Grootaert, 1 ♀ (RBINS); *ibid.*, swamp forest, 28.X.05, Malaise trap 1, sample no. 25403, P. Grootaert, 1 ♀ (RBINS); *ibid.*, swamp forest, 14.XII.05, Malaise trap 2, sample no. 25447, P. Grootaert, 1 ♀ (RBINS). Sime Forest, forest, 1.IV.05, Malaise trap 1, sample no. 25040, P. Grootaert, 2 ♂♂ (RBINS); *ibid.*, forest, 1.IV.05, Malaise trap 1, sample no. 25050, P. Grootaert, 1 ♂ (RBINS); *ibid.*, forest, 8.IV.05, Malaise trap 2, sample no. 25050, P. Grootaert, 1 ♂ (RBINS); *ibid.*, forest, 15.IV.05, Malaise trap 2, sample no. 25064, P. Grootaert, 1 ♂ (RBINS); *ibid.*, 8.IV.05, Malaise trap 1, sample no. 25049, P. Grootaert, 1 ♂ 1 ♀ (RBINS); *ibid.*, forest, 8.VII.05, Malaise trap 2, sample no. 25204, P. Grootaert, 1 ♂ 1 ♀ (RBINS), 1 ♀ (ZRC). Bukit Timah, rain forest, 11.IV.05, Malaise trap, sample no. 25055, P. Grootaert, 1 ♀ (RBINS).

Therates dimidiatus was formally recorded from Singapore by WIESNER (1988) sub ssp. *wallacei* Thomson, 1857, but I follow here Brouérius van NIDEK (1977) in tentatively considering *dejeanii* as a subspecies other than *wallacei* (which apparently inhabits the same areas), because of its yellow elytral apex (lacking in *wallacei*). However, as it may happen with several supposed *Therates* "subspecies" (CASSOLA, 1985), *dejeanii* and *wallacei*, if they will ever be found to be syntopic in the future, can well prove to be distinct species instead. All of the many examined specimens from Singapore appear to be *dejeanii*.

6. Cosmodela a. aurulenta (Fabricius, 1801)

MATERIAL: Nee Soon, swamp forest, 19.IV.05, sweeping, sample no. 25070, P. Grootaert, 1 ♀ (RBINS); *ibid.*, swamp forest, 10.VI.05, Malaise trap 2, sample no. 25155, P. Grootaert, 1 ♀ (RBINS). Sime Forest, forest, 1.IV.05, Malaise trap 1, sample no. 25040, P. Grootaert, 1 ♂ 1 ♀ (RBINS); *ibid.*, forest, 8.IV.05, Malaise trap 2, sample no. 25050, P. Grootaert, 1 ♂ (RBINS); *ibid.*, 13.IV.05, Malaise trap 1, sample no. 25129, P. Grootaert, 1 ♂ (RBINS); *ibid.*, forest, 22.IV.05, Malaise trap 2, sample no. 25075, P. Grootaert, 1 ♂ (RBINS), 1 ♀ (ZRC); *ibid.*, 17.VI.05, Malaise trap 1, sample no. 25136, P. Grootaert, 1 ♂ 1 ♀ (RBINS), 2 ♂♂ 1 ♀ (RBINS), 1 ♂ (FCC). Sungei, Buloh, 25.III.05, sample no. 25077, P. Grootaert, 1 ♂ (RBINS); *ibid.*, 22.IV.05, Malaise trap 1, P. Grootaert, 1 ♂ 2 ♀♀ (RBINS); *ibid.*, mangrove, 22.IV.05, sweeping, sample no. 25076, P. Grootaert, 1 ♂ (RBINS); *ibid.*, swamp forest, 27.VII.05, Malaise trap 1, sample no. 25072, P. Grootaert, 1 ♂ (RBINS); 28.IX.05, Malaise Trap 2, P. Grootaert, 1 ♀ (RBINS).

A common Oriental species, known to occur from peninsular Malaysia to Sumatra, Borneo, Java and Sulawesi (typonominal subspecies), but also widespread from northeastern India to southern China with its ssp. *juxtata* (ACCIAVATTI & PEARSON, 1989; WIESNER, 1992). Although predictably occurring in Singapore as well, the above mentioned specimens represent a new country record.

7. Cylindera (Verticina) versicolor (Macleay, 1825)

MATERIAL: Nee Soon, forest, 3.XII.03, Malaise trap, sample no. 23104, P. Grootaert, 1 ♂ (RBINS); *ibid.*, swamp forest, 16.III.05, sample no. 25017, P. Grootaert, 1 ♂ 1 ♀ (RBINS); *ibid.*, swamp forest, 11.IV.05, Malaise trap 3, sample no. 25059, P. Grootaert, 3 ♀♀ (RBINS), 1 ♀ (ZRC), 1 ♀ (FCC); *ibid.*, swamp forest, 06.V.05, Malaise trap 3, sample no. 25140, P. Grootaert, 1 ♀ (RBINS), 1 ♀ (ZRC); *ibid.*, swamp forest, 14.X.05, Malaise trap 5, sample no. 25392, P. Grootaert, 1 ♂ 1 ♀ (RBINS), 1 ♂ (FCC). Bukit Timah, rain forest, 11.IV.05, Malaise trap, sample no. 25055, P. Grootaert, 1 ♂ (RBINS). Sime Forest, 08.IV.05, Malaise trap 1, sample no. 25049, P. Grootaert, 1 ♂ 1 ♀ (RBINS); *ibid.*, forest, 14.X.05, Malaise trap 4, sample no. 25387, P. Grootaert, 1 ♀ (RBINS).

This small but beautiful species is widely distributed from Thailand to Malacca, and to the Sunda Islands as well (Sumatra, Java, Borneo) (WIESNER, 1992). Intraspecific variation, however, does not seem to individuate any recognizable subspecies. New country record for Singapore.

8. Cylindera (Ifasina) discreta (Schaum) ssp. *subfasciata* (W. Horn, 1892)

MATERIAL: Nee Soon, swamp forest, 5.IV.05, Malaise trap 2, sample no. 25047, P. Grootaert, 1 ♀ (RBINS); *ibid.*, swamp forest, 20.V.05, Malaise trap 3, sample no. 25146, P. Grootaert, 1 ♂ (RBINS); *ibid.*, swamp forest, 27.V.05, Malaise trap 3, sample no. 25149, P. Grootaert, 1 ♂ (ZRC).

C. discreta constitutes a polytypic complex to whom several supposed "subspecies" have been referred to from various parts of its wide geographical distribution. However, since some of these have later proved to be separate good species instead, the whole complex would deserve to be deeply reviewed. The true *discreta* (lacking any apical lunule on elytra) was described from Sulawesi, while the populations from Borneo and Sumatra (and from Malacca as well: NAVIAUX 1987) are here tentatively ascribed to ssp. *subfasciata* (having a complete apical lunule on elytra), and the very similar ones from the Philippines are considered, also tentatively, to be ssp. *elaphroides* (Dokhtouroff, 1882). In contrast, past records from Cambodia may well refer to a closely allied species, *C. (I.) juergenwiesneri* (NAVIAUX, 1991), described from Thailand (CASSOLA, 2005). *C. (I.) discreta*, anyway, is herein firstly recorded from Singapore (new country record).

9. Callytron doriai (W. Horn, 1897)

MATERIAL: Pulau Ubin, mangrove, 11.XII.03, Malaise trap, P. Grootaert, 1 ♂ (RBINS), 1 ♂ (FCC). Sungei Buloh, mangrove, 5.VIII.05, Malaise Trap 1, sample no. 25284, P. Grootaert, 1 ♂ (RBINS).

A rare small species, previously known from Borneo and Sumatra only (Wiesner, 1992). Having escaped Rivalier's revision (1961), it was firstly ascribed to the genus *Callytron* Gistl, 1848 (comprising a few Oriental species which occur in mangrove sea beaches) by Wiesner (1986), who examined just two specimens from Sumatra. The three specimens mentioned above represent an unexpected and welcomed new country record.

References

ACCIAVATTI, R. & PEARSON D.L., 1989. The tiger beetle genus *Cicindela* (Coleoptera, Insecta) from the Indian subcontinent. *Annals of Carnegie Museum*, 58: 77-353; Pittsburgh, Pennsylvania.

BROUERIUS VAN NIDEK, C.M.C., 1977. Notes on subspecies of *Therates dimidiatus* with the description of a new subspecies and a correction. *Cicindela*, 9: 21-24; St. Paul, Minnesota.

CASSOLA, F., 1983. Studi sui Cicindelidi. XXXII. Le *Cylindera* del subgen. *Leptinomera* Rivalier (Coleoptera Cicindelidae). *Redia*, 66: 9-35; Firenze, Italy.

CASSOLA, F., 1985. Studi sui Cicindelidi. XL. La "Mémoire sur l'Eurychile" di Franco Andrea Bonelli e attuali conoscenze sul genere *Therates* Latreille (Coleoptera, Cicindelidae). *Bollettino del Museo Regionale di Scienze Naturali*, 3: 499-514; Torino, Italy.

CASSOLA, F., 2005. Studies on Tiger Beetles. CLV. New data from Thailand and Cambodia (Coleoptera: Cicindelidae). *Bulletin de l'Institut Royal de Sciences Naturelles de Belgique*, Entomologie, 75: 13-21; Bruxelles, Belgium.

CHUNG, R.S.H., CHEW, R.Y. & AU-EONG, K.G., 2005. Coleoptera cincindelidae [sic!] beetle in the eye. *Singapore Med.*, 46 : 564-565; Singapore.

HORN, W., 1926. Carabidae: Cicindelinae. In: W. JUNK (ed.), *Coleopterorum Catalogus*, Pars 86, pp. 1-345; Berlin, Germany.

NAVIAUX, R., 1987. Sur quelques Cicindelinae de la presqu'ile de Malacca (Coleoptera, Cicindelidae). *Revue scientifique du Bourbonnais*, 67-83; Moulins, France.

NAVIAUX, R., 1995. Les *Collyris* (Coleoptera Cicindelidae). Révision des genres et description de nouveaux taxons. *Société linnéenne de Lyon*, 1-332; Lyon, France.

NAVIAUX, R., 2002. Tricondylina (Coleoptera, Cicindelidae). Révision des genres *Tricondyla* Latreille et *Derocrania* Chaudoir et descriptions de nouveaux taxons. *Mémoires de la SEF* n° 5, pp. 1-106; Paris, France.

NAVIAUX, R., 2004. Les *Collyris* (Coleoptera, Cicindelidae). Complément à la «Révision du genre *Collyris* (sensu lato)» et description de nouveaux taxons. *Bulletin mensuel de la Société Linnéenne de Lyon*, 73 : 55-142; Lyon, France.

ROWTHORN, Ch., BENSON, S., KERR, R. & NIVEN, Ch. 2001. *Malaysia, Singapore & Brunei.* Lonely Planet, 8th Edition, 1-687; Victoria, Australia.

RIVALIER, E., 1961. Démembrement du genre *Cicindela* L. (suite). IV. Faune indomalaise. *Revue française d'Entomologie*, 28: 121-149; Paris, France.

RIVALIER, E., 1964. Le genre *Prothyma* Hope. Révision et description de quatre espèces nouvelles. *Revue française d'Entomologie*, 31: 127-164; Paris, France.

SOCHACZEWSKI, P.S., 2000. An inordinate fondness for beetles. Singapore proves a Coleoptera paradise for Victorian explorer Alfred Russel Wallace; new creatures still emerge. *Royal Geographical Society-Geographical*, 6 pp.; Internet.

WALLACE, A.R., 1869. *The Malay Archipelago. The land of the Orang-Utan and the Bird of Paradise. A narrative of travel, with studies of man and nature.* Macmillan & Co., London, XVIII+515 pp. [Unabridged reprint of the 1922 edition: Dover Publications Inc., New York].

WIESNER, J., 1986. Die Cicindelideae aus Sumatra. 9. Beitrag zur Kenntnis der Cicindelidae (Coleoptera, Cicindelidae). *Mitteilungen der Münchner Entomologischen Gesellschaft*, 76: 5-66; Münich, Germany.

WIESNER, J., 1988. Die Gattung *Therates* Latr. und ihre Arten. *Mitteilungen der Münchner Entomologischen Gesellschaft*, 78: 5-107; Münich, Germany.

WIESNER, J., 1992. *Verzeichnis der Sandlaufkäfer der Welt. Checklist of the Tiger Beetles of the World.* Verlag Erna Bauer, 1-364; Keltern, Germany.

Fabio CASSOLA
Via Fulvio Tomassucci 12/20
I-00144 Roma, Italy
e-mail: FabioCassola@aliceposta.it