

Hind Wing Polymorphism Confirmed in the Coloninae (Coleoptera, Leiodidae)

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Abstract The occurrence of a hind wing polymorphism in the subfamily Coloninae is confirmed for the first time.

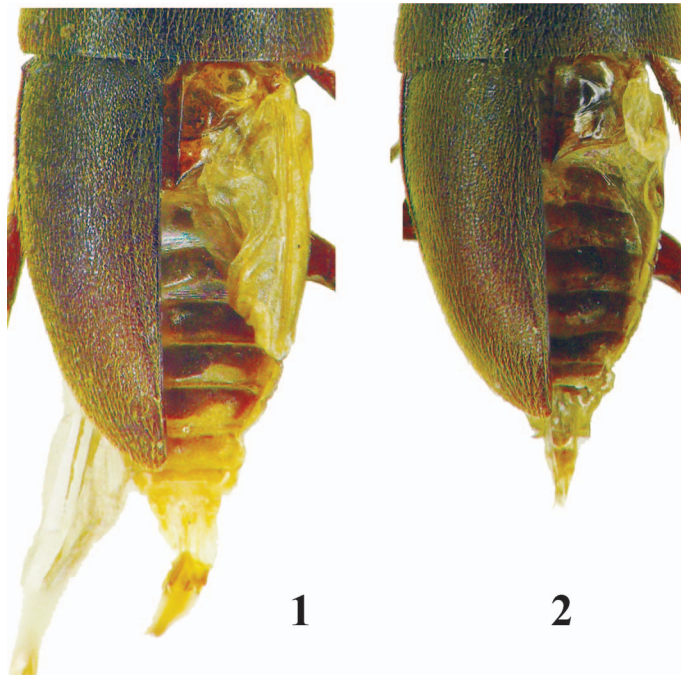
Nothing has previously been known on the occurrence of hind wing atrophy in any colonine beetle species, despite the existence of apterous condition ordinarily known in a wide range of other leiodid subfamily species (cf. NEWTON, 2005). Recently, I found some specimens of a brachypterous *Colon* species besides a specimen of macropterous condition from the Kamchatka Peninsula and Siberia in my collection. These specimens agreed with *Colon (Eurycolon) latum* KRAATZ. This species has a record of its trivial flight observed in Czech (FLEISCHER, 1903) and a widespread distributional range extending from Europe to Siberia (PERREAU, 2004). Very recently, the species was newly recorded from the Lazovsky Nature Reserve near Vladivostok, the Russian Far East (RŮŽIČKA, 2009). It is therefore likely to be considered showing as a northern Palaearctic distribution in a zoogeographical pattern, though unrecorded areas among Asian localities are spacious. As for specimens of RŮŽIČKA' record, their hind wings were confirmed as brachypterous condition, which was also confirmed in those of some localities in Central and Southeastern Europe, while specimens of macropterous condition were less commonly coexisting with them only at a few localities (RŮŽIČKA, pers. comm.).

I therefore show herein the occurrence of a hind wing polymorphism in the subfamily Coloninae for the first time. This brief paper is published to promote additional observations of the hind wing condition in colonine collections worldwide, because the condition has not been used as their diagnostic character (e.g., SZYMCAKOWSKI, 1969), and consequently has possibly been ignored from morphological observations of these specimens.

Colon (Eurycolon) latum KRAATZ, 1850

(Figs. 1–2)

Brachypterous specimens examined. 1 ♂, Berikul [ca. 56.2092°N 87.0572°E], Kuznetzkij Alatau, W. Siberia, Russia, 1–VI–1982, V. ERYSHOV leg.; 2 ♀♀, near Esso



Figs. 1-2. *Colon (Eurycolon) latum* KRAATZ, showing hind wing conditions. — 1, Macropterous condition, ♀, from Kuralzhycha Village, S. Uralskiy Khrebet, Russia; 2, brachypterous condition (0.43 mm in length), ♀, from Syrostan Village, S. Uralskiy Khrebet.

Village [ca. 55.9333°N 158.7°E], 600 m in alt., Kamchatskaya Oblast, Kamchatka Peninsula, Russia, 7-VII-2002; 1 ♂, 1 ♀, Kuralzhycha Village [Kuramshina?; ca. 55.1639°N 60.8378°E], Kyshtym District, Chelyabinskaya Oblast, S. Uralskiy Khrebet, Russia, 5-VII-2000; 1 ♂, 3 ♀♀, Syrostan Village [ca. 55.0608°N 59.9028°E], Miass District, Chelyabinskaya Oblast, S. Uralskiy Khrebet, 11-VI-2000; 3 ♂♂, 11 ♀♀, same locality, 12-VI-2000.

Macropterous specimen examined. 1 ♀, Kuralzhycha Village, Kyshtym District, Chelyabinskaya Oblast, S. Uralskiy Khrebet, 5-VII-2000. (All the specimens examined are in my collection.)

Discussion. The hind wing conditions of the specimens examined and their situations in Europe strongly suggest that *C. latum* clearly consists of macropterous and brachypterous individuals probably showing a geographical cline of their ratio in each population of its distributional range. The cline expected in this case is similar to the geographical cline of a wing dimorphism displayed in certain North European carabids (UDVARDY, 1969) but the geographical pattern of the case is still unclear judging from the present knowledge. Concerning the brachypterous specimens examined, their hind wings are undoubtedly reduced irrespective of the sex, varying the length even in

sympatric specimens. For example in specimens from Syrostan, their wings are reduced in length as follows: 0.1–0.2 mm in 2 ♂♂ and 5 ♀♀, 0.2–0.3 mm in 4 ♀♀, 0.3–0.4 mm in 1 ♂ and 2 ♀♀, 0.4–0.5 mm in 3 ♀♀, and 0.5–0.6 mm in 1 ♂. Similar variations were also observed in those of specimens from Slovakia and Lazovsky Nature Reserve (RŮŽIČKA, pers. comm.).

In any case, additional confirmation of wing conditions throughout the distributional range of this species is required to reinforce the prediction and observations based on geographically sporadic specimens.

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要 約

西川正明：ヒゲブトチビシデムシ亜科（コウチュウ目タマキノコムシ科）に確認された後翅多型性。——タマキノコムシ科に所属する亜科の大部分に後翅を欠く甲虫が存在するにもかかわらず、ヒゲブトチビシデムシ亜科甲虫には、今までいかなる後翅の退化現象も知られていなかった。この度、シベリア産の *Colon (Eurycolon) latum* KRAATZ の標本のほとんどが短翅状態であることを見出したので、ヨーロッパの数カ所の状況とをあわせて、本亜科における後翅多型性の存在を初めて報告した。さらに、退化現象の有無の確認とともに本種には各産地内の長翅・短翅個体の比率に地理的クラインが生じている可能性があるため、所蔵標本の再調査の必要性を指摘した。

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