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Nomenclatural history of *Melanophila drummondi* ab. *nicolayi* Obenberger, 1944 (Coleoptera: Buprestidae), a change of authorship and synonymy under *Phaenops drummondi* (Kirby 1837), and a new distribution record and summary of larval hosts for the species

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Abstract. *Melanophila drummondi* ab. *nicolayi* Obenberger 1944 has been listed in some of the more recent literature as *M. drummondi nicolayi* Obenberger, thus creating problems with interpretation of its status as an unavailable name under Articles 13 and 45.6.2 of the ICZN (1999). This issue is discussed. Based on examination of a photograph of the type specimen, we consider the taxon unworthy of separation from *Phaenops drummondi* (Kirby 1837), which is compared to similar species occurring in its range. A new distribution record and summary of known larval hosts are provided for the species.

Key Words. Taxonomy, synonymy, nomenclature, distribution, larval hosts.

Introduction

Phaenops drummondi (Kirby 1837:159) is a widespread Nearctic jewel beetle species associated with pinaceous conifers across Canada and the northern U.S., including Alaska. Like so many in the family, it was originally described in the genus *Buprestis*; however, for most of its history it resided under *Melanophila* until Opinion 1826 (ICZN 1996:60) fixed the current combination. It exhibits a high degree of variability in pronotal and elytral sculpturing and maculation, with the latter used as the basis for descriptions of several infrasubspecific taxa: *Melanophila drummondi* ab. *tristicula* Obenberger (1928:209), *M. drummondi* ab. *plagifera* Obenberger (1928:210), *M. drummondi* ab. *lanchesteri* Obenberger (1944:320), *M. drummondi* ab. *nicolayi* Obenberger (1944:320), *M. drummondi* ab. *quirsfeildi* Obenberger (1944:320), and *M. drummondi* ab. *monostictula* Obenberger (1944:320). Although type locations and illustrations were provided for each, Obenberger's explicit use of the term "ab." in describing these taxa indicates that he did not consider them to merit subspecific rank. As such (with one exception), they are considered unavailable names according to Article 45.5 of The International Code of Zoological Nomenclature (hereafter, "The Code") (ICZN 1999) and are so listed in the recently published North American and world catalogues (Nelson et al. 2008 and Bellamy 2008, respectively).

The one exception is *M. drummondi* ab. *nicolayi*, which Obenberger (1944) distinguished by an absence of the anterior pair of elytral maculae and for which he gave as the type locality "New Hampshire." Blackwelder & Blackwelder (1948) listed this and the other Obenberger aberrations as synonyms of *M. drummondi*, but Wellso et al. (1976), inexplicably, included *M. drummondi nicolayi* in their key to

Michigan Buprestidae, differentiating it from *M. fulvoguttata* (Harris 1830:2) by the different pronotal sculpturing. Bright (1987) listed again all of the Obenberger names as synonyms of *M. drummondi*, although he did not indicate his placement of "ab. *nicolayi*" to be a new synonymy. Later, ab. *nicolayi* was twice again listed as a trinomial (Westcott 1991, Wellso & Jackman 2006), although neither paper provides a rationale for treating the taxon as a valid subspecies. Nevertheless, these recent treatments as a valid subspecies led to its listing as *Phaenops drummondi nicolayi* (Obenberger) in the North American (Nelson et al. 2008) and world (Bellamy 2008) catalogues. To us it is clear that all of these authors were simply following the unexplained listing by Wellso et al. (1976), failing to note its synonymical listing under *P. drummondi* (Blackwelder & Blackwelder 1948, Bright 1987).

We have no doubt that the taxon referenced in the above publications fits the current concept of *P. drummondi*, as confirmed by examining a photograph of the type specimen of *M. drummondi* ab. *nicolayi* (Fig. 1; see discussion below). Under the current version of The Code (ICZN 1999), the aberrations named by Obenberger (1928, 1944) are considered infrasubspecific taxa and, thus, unavailable names. However, the treatment of ab. *nicolayi* by Wellso et al. (1976) casts some doubt on this status. With regard to species-group names, Article 45.6.2 of The Code (ICZN 1999) states: "it is deemed to be infrasubspecific if its author used one of the terms "aberration", "ab." or "morph" but provides an exception in the following example:

> "Example. The name *pallasi* in *Arvicola amphibius* ab. *pallasi* published by Ognev (1913) is infrasubspecific; it is available as a species-group name from, and should be attributed to, Ognev (1950) who first used it for a subspecies, *Arvicola terrestris pallasi*."

The question now is if, by listing "ab. *nicolayi*" as a trinomial in a faunal key but not comparing it within the species *P. drummondi*, Wellso et al. (1976) validated "*Melanophila drummondi nicolayi*" as a subspecies. If not, the name is unavailable. However, if the listing by Wellso et al. (1976) is construed as a valid nomenclatural act, then the name must be considered to have been made available by and attributed to them. We argue that use of the trinomial in the key in Wellso et al. (1976) does not validate the name as a subspecific species-group name (i.e., that a simple couplet in a key does not satisfy Art. 13.1.1 of The Code). However, we also acknowledge that others may interpret the situation differently. Accordingly, and to promote stabilization of this name as a non-valid taxon, we accept, with reservations, its status as an available name, which necessitates a change of authorship to *M. drummondi nicolayi* Wellso et al. 1976 (**change of authorship**).

As noted above, examination of a photograph of the type specimen (Fig. 1) confirms that "ab. *nicolayi*" fits the current concept of *P. drummondi* (**syn. nov.**). In the eastern part of its range this species might be confused with the common *P. fulvoguttata* (Harris 1830:2), but the pronotal strigulae are usually more strongly, sharply elevated, and the elytral surface is less distinctly punctured and bears three more or less distinct longitudinal costae which can be weak or absent (Bright 1987). Distinctly elevated pronotal strigae and faint elytral costae are both visible in Fig. 1. *Phaenops drummondi* is actually more closely related to *P. abies* (Champlain & Knull 1923:105), the latter restricted to southeastern Canada and northeastern U.S. and exhibiting distinctive blue-green dorsal coloration. In the western part of its range, *P. drummondi* is commonly confused with *P. lecontei* (Obenberger 1928:210), which is

Figure 1. *Melanophila drummondi* ab. *nicolayi* Obenberger (1944), holotype, dorsal habitus (length = 7.8 mm, deposited National Museum, Prague, Czech Republic).

most easily distinguished by its serrulate elytral apices (albeit indistinctly so on some specimens) and less so by the pronotum having coarser strigulae and usually distinct, coarse punctures. The two species are readily separable by their respective aedeagal structures.

New Distribution Record and Summary of Larval Hosts

Phaenops drummondi is a common and highly variable species that utilizes a wide variety of hosts in the family Pinaceae. Its distribution is transcontinental but more sporadic in the eastern portion of its known range (Bellamy 2008, Bright 1987). The following specimen in the second author's collection apparently represents a **new state record**: Maine, Penobscot Co., Township A, R7, 20.vi.1966, Lloyd R. Davis, Jr. Host data for this beetle are widespread in the literature, some of which may refer instead to closely related species. Because this is a common forest species and is sometimes considered to be a pest, and because Nelson et al. (2008) treated larval

hosts for the species only at the genus level and did not associate them with the literature, we offer the following summary of all recorded larval hosts (all Pinaceae) known to us: *Abies alba* Mill., *A. balsamea* (L.) Mill. (Blanchard 1889); *Picea mariana* (Mill.) Britton, Sterns & Poggenb. (as *Abies nigra*) (Blanchard 1889, Beer & Hatch 1941); *Pinus ponderosa* Douglas ex Lawson & C. Lawson (Burke 1917, Chamberlin 1917, Scott 1974); *Abies grandis* (Douglas ex D. Don in Lambert) Lindley, *Pseudotsuga menziesii* (Mirbel) Franco (as *P. taxifolia*) (Chamberlin 1917); *Abies amabilis* Douglas ex J. Forbes, *A. concolor* (Gordon & Glendinning) Hildebrand, *A. lasiocarpa* (Hooker) Nuttall, *A. magnifica* A. Murray bis, *A. procera* Rehder (as *A. nobilis*), *Larix occidentalis* Nuttall, *Picea engelmannii* Parry ex Engelmann, *P. sitchensis* (Bongard) Carrière, *Tsuga heterophylla* (Rafinesque) Sargent, *T. mertensiana* (Bongard) Carrière (Burke 1919); *Tsuga canadensis* (Linnaeus) Carrière (Knull 1925); *Picea glauca* (Moench) Voss (Barr 1971); *Cedrus deodara* (Roxb.) G. Don (Nelson & Westcott 1976); *Larix laricina* (Du Roi) K. Koch (Wellso & Jackman 2006). Thus, *P. drummondi* has been recorded from every genus of Pinaceae in the U.S. and one that is foreign. Given the opportunity, probably it can breed in any species of the family.

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