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Desertoplusia bella (Christoph, 1887) - a new noctuid moth species from Armenia (Lepidoptera: Noctuidae)

R. Waşala & J. Nowacki

Abstract

This is the first record of *Desertoplusia bella* (Christoph, 1887) for Armenia. It was found in Vayots Dzor Province, south-western Armenia.

KEY WORDS: Lepidoptera, Noctuidae, *Desertoplusia bella*, new record, Armenia.

Desertoplusia bella (Christoph, 1887) - una nueva especie para Armenia
(Lepidoptera: Noctuidae)

Resumen

Este es el primer registro de *Desertoplusia bella* (Christoph, 1887) para Armenia. Fue encontrado en la provincia de Vayots Dzor, sudoeste de Armenia.

PALABRAS CLAVE: Lepidoptera, Noctuidae, *Desertoplusia bella*, nuevo registro, Armenia.

Introduction

The Ponto-Turkestanian genus *Desertoplusia* Klyuchko, 1984 was separated from the genus *Plusia* Ochseheimer, 1861 for a group of species occurring from eastern Turkey through Iran and Turkmenistan to north-eastern Afghanistan (KLYUCHKO, 1984). Later, a new genus - *Platoplusia* Ronkay, Ronkay & Behounek, 2008 - was created out of *Desertoplusia* Klyuchko for the species *Platoplusia tancrei* (Staudinger, 1895) (RONKAY *et al.*, 2008). *Desertoplusia bella* (Christoph, 1887) is a sibling species of the recently described *D. colornata* Varga & Ronkay, 1991. Both are quite readily distinguished on the basis of both wing colour and pattern, and evident differences in the structures of the male and female genitalia (RONKAY *et al.*, 2008). Knowledge of the distribution of *D. bella* is incomplete. It had been reported from Iran and Turkmenistan as endemic to the Kopet Dagh Mts (RONKAY *et al.*, 2008; ZAHIRI & FIBIGER, 2008), but it was subsequently found in Van Province in eastern Turkey (no details of the time and place of the record provided) (KOÇAK & KEMAL, 2012).

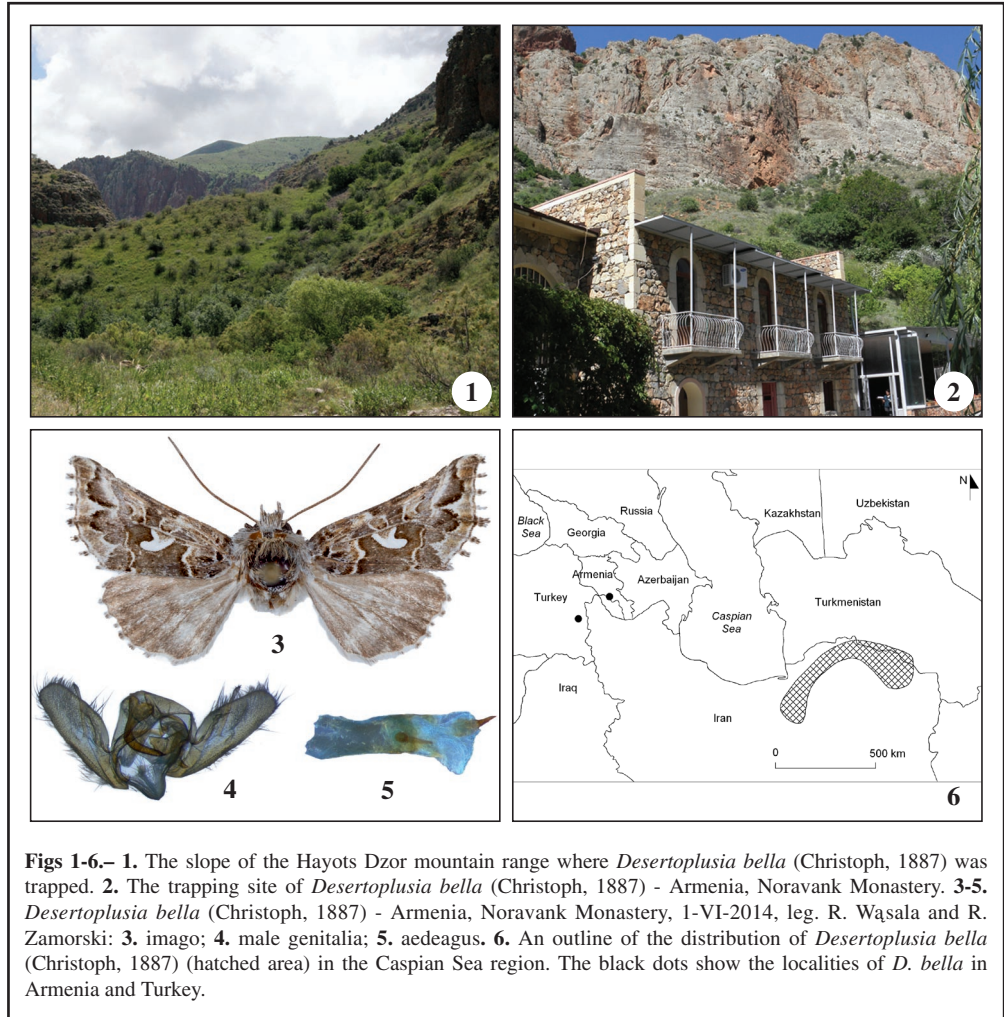
Material and method

During an entomological expedition to Armenia in 2014, we came across *D. bella* in Vayots Dzor Province - this was the first record of this species for this country. The place where we trapped it is part of the Gnisheek Prime Butterfly Area and the Noravank Important Bird Area. These Areas lie on the north-eastern flanks of the Hayots Dzor mountain range, varying in altitude from 1200 to 2320 m. a.s.l.,

through which the deep Zangezur Canyon has cut. The slopes of the canyon from bottom to top support a great diversity of habitats out of which many different ecosystems have evolved: alluvial forests, deciduous woodlands, semi-desert scrub, tragacanth hedgehog-heaths, mountain steppes, patches of rock sward, subalpine meadows (Figs 1-2).

Locality: Armenia, Prov. Vayots Dzor, Noravank Monastery - 6 km SE ad Areni, (39°41'05" N; 45°14'02" E), 1510 m a.s.l., 1 ♂, 1-VI-2014, leg. R. Waśala & R. Zamorski (Figs 3-5). The material deposited in the author's collection (Poznań University of Life Sciences).

The specimen was attracted, along with many other moths, to a white screen illuminated with a 250 W mercury vapour lamp.



Figs 1-6.– 1. The slope of the Hayots Dzor mountain range where *Desertoplusia bella* (Christoph, 1887) was trapped. 2. The trapping site of *Desertoplusia bella* (Christoph, 1887) - Armenia, Noravank Monastery. 3-5. *Desertoplusia bella* (Christoph, 1887) - Armenia, Noravank Monastery, 1-VI-2014, leg. R. Waśala and R. Zamorski: 3. imago; 4. male genitalia; 5. aedeagus. 6. An outline of the distribution of *Desertoplusia bella* (Christoph, 1887) (hatched area) in the Caspian Sea region. The black dots show the localities of *D. bella* in Armenia and Turkey.

Discussion

Not much is known about the biology and environmental preferences of *D. bella*. Its caterpillar and host plant(s) are as yet unknown. In the Kopet Dagh Mts, a known biodiversity hotspot

(GILLESPIE *et al.*, 2012), the species was found at altitudes from 1070 to 2950 m a.s.l.; the flight season lasts from mid-May until early August (ZAHIRI & FIBIGER, 2008). Our finding of the species in Armenia in early June at 1510 m a.s.l. corroborates that information.

Previous findings of *D. bella* are from localities in Turkmenistan and Iran, and also in Van Province, Turkey, disjunctive regions that are ca 1000-1400 km apart latitudinally. The site in Armenia where we found the species lies in between these extremes: 1000-1300 km to the west of the Kopet Dagħ Mts in Iran-Turkmenistan and ca 200 km north-east of the site in eastern Turkey (Fig. 6). *D. bella* is probably more widely distributed, occurring in suitable biotopes in eastern Turkey, southern Armenia and northern Iran.

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