

## A new species of *Novelsis* Casey, 1900 from California (Coleoptera: Dermestidae: Attageninae)

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**Taxonomy, new species, description, key, Coleoptera, Dermestidae, Attageninae, *Novelsis*, California, U.S.A.**

**Abstract.** *Novelsis beldensis* sp. nov. from California is described, illustrated and compared with similar species. The new species differs by the structure of the antennae, male genitalia and bicolourous elytral pattern.

### INTRODUCTION

The genus *Novelsis* Casey, 1900 belongs to the subfamily Attageninae and currently contains six species known from Canada, the United States and Mexico. Additionally, one species is introduced but not established in Europe (Háva 2015, Háva & Herrmann 2021). Studies regarding this genus were published by Beal (1954, 1970, 1984).

A new species recently collected in California is here described and compared with the other known species.

### MATERIAL AND METHODS

Photos were made using a Canon EOS 60D with the Canon MPE 65 macro lens, mounted on a StackShot automated rail. The smaller detail photos are from the 5MP camera integrated into a Leica S9i microscope.

The nomenclature and zoogeography follow the catalogue of Háva (2015) and the United States Catalogue of Háva & Herrmann (2021).

The following abbreviations of measurements were used:  
total length (TL) - linear distance from anterior margin of pronotum to apex of elytra.  
elytral width (EW) - maximum linear transverse distance.

The type specimen is labelled with a red printed label bearing the text as follows: "HOLOTYPE *Novelsis beldensis* sp. nov. Jiří Háva det. 2021".

Holotype is deposited in the JHAC - Jiří Háva, Private Entomological Laboratory & Collection, Únětice u Prahy, Prague-West, Czech Republic.

## DESCRIPTION

### *Novelsis beldensis* sp. nov.

(Figs. 1-6)

**Type material.** Holotype (♂) labelled: „California, USA, Belden Town, Plumas Co., 40.00574,-121.25215, 12 May 2021, Jerry Wilson [leg.] in leaf litter“, (JHAC).

**Description of holotype.** Male. Body: TL 4.2 mm, EW 1.9 mm; elongated and oval (Figs. 1-3), slightly convex; dorsally bicolorous and ventrally unicolorous, dark brown and black, shiny; dorsum covered with long and recumbent, black setation; thoracic underside with comparatively short and recumbent, black setation; visible abdominal ventrites with recumbent, black setation. Head finely punctate with long, black setation. Labrum brown with short yellow setation. Papli entirely brown. Frontal median ocellus present. Antennae brown with long black setae on antennomeres I-VII and short, yellow setation on antennomeres



Figs. 1-6. *Novelsis beldensis* sp. nov.: 1- habitus, dorsal; 2- habitus, ventral; 3- habitus, lateral; 4- head; 5a,b- antenna; 6- aedeagus.

VIII-X, comprised of 10 antennomeres, antennal club with 3 antennomeres (Fig. 5). Eyes large with short, yellow microsetae. Pronotum black, finely punctate on the disc, coarsely punctate on lateral margins with long black setation. Lateral margins and anterior angles not visible from above. Lateral margins with very short black setae. Hypomeron shining with small punctures and short, black setation. Scutellum black, small and triangular, shining, with rounded apex, without setation. Elytra bicolorous, reddish-brown on anterior third and black on the posterior two-thirds not reaching apex and lateral parts (Figs. 1, 3), coarsely punctate on humera and with one small humeral bump, other parts finely punctate. Epipleuron reddish-brown, broad, short, with short, black setae. Prosternum without “collar,” mouthparts free. Prosternal process short and narrow. Meta- mesosternum finely punctate centrally, laterally coarsely punctate, with black, recumbent setation. Abdomen black, with five visible abdominal ventrites, each ventrite laterally with very small depressions, covered by recumbent, black setation. Legs reddish-brown, covered with comparatively short and thick, yellow setation. Anterior tibiae with very short, brown spines posteriorly along its length. Tarsi moderately short. Male genitalia as in Fig. 6.

**Female.** Unknown.

**Differential diagnosis.** The new species differs from the six known species by the characteristic bicolorous elytral coloration.

A(B) antennae with 11 antennomeres

- 1(2) Marginal line of light maculation present on elytron and extending from base to posterior third or fourth..... male of *Novelsis andersoni* Beal, 1954
- 2(1) Marginal line of light maculation usually appearing as short spur on oblique subbasal band, but at most extending from base no further than middle of elytron..... *Novelsis hornii* (Jayne, 1882)

B(A) antennae with 10 antennomeres

- 1(4) Dorsal setae unicolorous, black or blackish-brown; setae on disc of pronotum and elytra as long as combined length of antennal segments 3, 4, and 5, or longer. Setal punctures on disc of pronotum and base of elytra separated by two and usually three to four or more times diameter of single puncture. Hypomeron not forming lobe behind base of procoxa; base of procoxa and trochantin exposed
- 2(3) Elytra unicolorous brown, male antenna with terminal segment no more than four-fifths as long as length of two preceding segments combined..... *Novelsis athlophora* Beal, 1954
- 3(2) Elytra bicolorous reddish-brown with large black area on posterior part, not reaching apex and lateral parts, male antenna as in fig. 5..... *Novelsis beldensis* sp. nov.
- 4(1) Dorsal setae unicolorous, bicolorous or tricolorous; setae on disc of pronotum and elytra seldom longer than combined length of antennal segments 3 and 4, usually shorter, although setae on margins of elytra and pronotum may be longer, but if dorsal setae longer than length of antennal segments 3, 4, and 5 combined, then setae bicolorous or tricolorous. Setal punctures of disc of pronotum and base of elytra hidden by dense pubescence or, if visible, usually separated by one or two times diameter of single puncture. Hypomeron forming auricle-like lobe behind base of pro-coxa so that base of procoxa and trochantin largely hidden

- 5(6) Elytral integument brownish-black to black with contrasting light tan or reddish-yellow maculae; maculae forming oblique subbasal band, sutural line from base to apex or near apex, and marginal line from base or near base to apical fourth; whitish pubescence limited almost entirely to light-maculate areas ..... female of *Novelsis andersoni* Beal, 1954
- 6(5) Integument brownish-black without maculae or maculae, if present, more or less diffuse and difficult to see because of dense pubescence; setae on elytron unicolorous, whitish, or brown and whitish; if bicolorous then white setae forming two irregular bands on apical half or several longitudinal lines on apical half or white setae interspersed among dark setae on apical half.
- 7(8) Hind tibia bearing on posterior side numerous erect setae more than three times as long as spines along shaft of tibia. Elytron with whitish setae forming irregular circle on basal half and two bands on posterior half. Male antenna in repose extending almost to hind margin of metepisternum ..... *Novelsis picta* Casey, 1900
- 8(7) Hind tibia without long, erect setae but with usual long, recumbent setae through which project short, stout spines. Elytron entirely covered with whitish hairs (females) or with dark hairs among which whitish hairs form basal band, subbasal oblique band, sutural line, and several somewhat distinct lateral lines on apical half (males and occasional females). Male antenna in repose extending about as far as hind margin of middle coxa ..... *Novelsis uteana* Casey, 1900

**Etymology.** The specific epithet is derived from the type locality - Belden Town.

**Biology.** Holotype found within White Oak leaf litter on sandy soil among granite boulders. The collection site lies at the edge of a sandy riparian flood zone habitat in a dry mountainous mixed coniferous and deciduous forest environment at 677 m elevation.



Fig. 7. Type locality of *Novelsis beldensis* sp. nov.

## LIST OF UNITED STATES SPECIES OF *NOVELSIS* CASEY, 1900

<i>Novelsis andersoni</i> Beal, 1954	Arizona, California, Utah
<i>Novelsis athlophora</i> Beal, 1954	Idaho, Oregon, Washington, Wyoming
<i>Novelsis beldensis</i> sp. nov.	California
<i>Novelsis hornii</i> (Jayne, 1882)	Arizona, California, Colorado, New Mexico, Oklahoma, Texas
<i>Novelsis picta</i> Casey, 1900	Arizona, California, Nevada
<i>Novelsis timia</i> Beal, 1954	Arizona, California
<i>Novelsis uteana</i> Casey, 1900	Arizona, California, Nebraska, New Mexico, Nevada, Texas, Utah

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