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## Description of a new *Leistus* species from the Sierra de la Cabrera Baja in North-west Spain (Carabidae, Nebriini)<sup>1</sup>

D.W. WRASE, I. RUIZ-TAPIADOR & J.M.P. ZABALLOS

**Abstract:** *Leistus valcarceli* spec. nova from the Sierra de Cabrera Baja in North-west Spain, belonging to the group of *L. angusticollis* DEJEAN, is described.

**Key words:** *Leistus*, *L. angusticollis* group, new species, North-west Spain.

### Introduction

We made an excursion to the Sierra de la Cabrera Baja (North-west Spain) together with our Galician colleagues and friends Fernando Prieto Piloña and Javier P. Valcárcel in 1995 and collected several specimens of an interesting species of *Leistus*. A detailed study showed, that it is an undescribed species belonging to the group of *L. angusticollis* DEJEAN, sharing all important characteristics, but different in several features.

### Methods and Acknowledgements

Total body length is measured from the anterior margin of the clypeus to the elytral apex; the width of head (WH) as the maximum linear distance across the head, including compound eyes; the length of pronotum (LP) from the anterior to the posterior margin along the mid-line; the length of elytra (LE) from the basal ridge in the scutellar region to the apex of the sutural angle; the width of pronotum (WP) and elytra (WE) at their broadest point; the width of the basis of the pronotum (WPB) the linear distance between the hind angles. IA means the index of the length of the fifth to the third segment of the antennae. Photographs were taken with a Philips XL-20 Scanning Electron Microscope.

We greatly appreciate the assistance of our friends and colleagues Fernando Prieto Piloña and Javier P. Valcárcel (Galicia, Vigo) which enabled us to collect many interesting species of Carabidae during our excursions in Galicia. We would like to thank P. Cate (Vienna) for his valuable comments on the manuscript and are very indebted to Th. ABmann (Vechta), who had the kindness to compare our material with a species, just described by him from the Picos de Europa (Cantabrian mountains). Technical assistance, for wick we are grateful, was received from J. Bedoya (Madrid) who prepared the photographs.

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## Results

### *Leistus* (s.str.) *valcarceli* spec. nova

**Type material:** Holotype ♂: Spain (Léon), Sierra de la Cabrera Baja, ca. 3 km W Mt. Cerro Fallanquinos, 2000 m (edge of snowfield), 10.VII.1996, D.W. Wrase leg. (Coll. Wrase).

Paratypes: 1♂, 1♀, labelled same as HT (Coll. J. Farkač / Prague, Coll. J.P. Valcarcel/Vigo); 2♂♂, 3♀♀, labelled same as HT, but I. Ruiz-Tapiador, F. Prieto Piloña & J.M.P. Zaballos leg. (Coll. Th. Abmann/ Vechta, Coll. Cl. Jeanne/Langon, Coll. Ruiz-Tapiador, Coll. J.M.P. Zaballos).

**Description:** Body length 7.1-8.5 mm (HT 7.8 mm).

The whole body reddish brown, the appendages lighter.

Head (figs. 1, 3) in comparison to the pronotum fairly large (WP:WH = 1.2 /HT-1.27, (1.23), impunctate, convex. Eyes of middle size, protruding convexly, the temporae straight, of about little more than half of the eye diameter (IA = 1.32-1.53, HT 1.45).

Pronotum (figs. 2, 3) of middle size, transverse (WP:LP = 1.35/HT-1.49, (1.49), the sides ± regularly rounded, constricted before the hind angles and almost straight in somewhat converging direction, hind angles sharp (HT) or somewhat obtuse at the tip in some PT (WP:WPB = 2.03-2.28, (2.16, HT 2.24). Gutter very broad and strongly punctate, becoming somewhat narrower only in the direction of the fore angles and before the constriction. Lateral seta inserted at the point of maximum width, very close to the margin. Anterior margin almost rectilinear, broadly bordered, fore angles slightly prominent, disc almost flat.

Elytra (fig. 4) elongate-oval (LE:WE = 1.61/HT-1.65, (1.63), with humeri very regularly rounded, humeral tooth very small. Maximum width at about the middle, all striae distinct and strongly punctate, intervals convex. Third interval with two (HT) or two to three setigerous punctures adjoining third stria. Disc in the apical half somewhat flattened, apex fairly acute. Hindwings strongly reduced.

Microsculpture very distinct in strength in both sexes, isodiametric meshes on the head, weak transverse meshes on the pronotum and longer transverse meshes on the elytra.

Legs very long and slender.

Aedeagus as in fig. 5.

**Comparisons:** The group of *Leistus angusticollis* DEJEAN was revised by G. PERRAULT in 1979. Up to now six species were known, all distributed in the mountains of the northern and central Iberian Peninsula (ZABALLOS & JEANNE 1994), a seventh species was just described (*L. starkei* ABMANN 1997, Picos de Europa, Cantabrian mountains). The new species shares with the members of this well-defined group all important characteristics (mandibles strongly enlarged laterally, fifth segment of the antennae distinctly longer than the third, eyes normal, longer than the tempora, labrum rounded apically, clypeus with one seta on each side, vertex divided from the neck by a deep constriction dorsally, gular setae situated on a transverse carina, pronotum with the anterior margin broadly bordered, with one lateral seta, seta in the hind angles absent, anterior and posterior margins and lateral gutter strongly punctate, median line well engraved, hind wings strongly reduced, elytra elongate-oval with shoulders very rounded or absent, striae well

engraved and strongly punctate, scutellar stria present, pro-, meso- and metepisterna and the first three sternites strongly punctate, every sternite with two setae on each side, last sternite with two (males) or four setae (females), the first four segments of the fore tarsi moderately enlarged in the males, color light or darker brown with the appendages lighter. But there are important differences. According to the form of the aedeagus (seen dorsally, the apical part is  $\pm$  acutely narrowed, not parallelly formed, see PERRAULT 1979: 61) the new species belongs to the subgroup of *L. angusticollis* (*L. acutangulus* PERRAULT, *L. angusticollis* DEJEAN, *L. oopterus* CHAUDOIR, *L. barnevillei* CHAUDOIR). *L. angusticollis* and *L. acutangulus* have the pronotal margin angulately enlarged and are easily distinguished. *L. oopterus* and *L. barnevillei* have the pronotal margin rounded laterally as in *L. valcarceli* spec. nova, but the gutter of the pronotum is narrow and enlarged in the middle only in the first mentioned species, whereas the gutter is very wide, becoming little narrower only in direction of the fore angles and before the constriction in the new species. The legs are also longer and more slender. The aedeagus of *L. valcarceli* spec. nova is similar to that of *L. oopterus* and *L. barnevillei*, but somewhat more slender and the strongly chitinized wing-like lateral parts are situated closer to each other, seen dorsally. The habitus of all three species is similar.

*L. constrictus* SCHAUFUSS (forming together with *L. angulatus* PIOCHARD and *L. starkei* ABMANN an another subgroup according to the different construction of the aedeagus) also possesses the lateral gutter regularly enlarged, but the gutter is twice as wide in the new species. Furthermore, the elytra of *L. constrictus* are of teardrop form, whereas the elytra of *L. valcarceli* spec. nov. are elongate-oval. *L. starkei* is different from all other species of the *angusticollis* group in having obtuse hind angles of the pronotum. Finally, *L. angulatus* has the pronotal margin angulately enlarged and not rounded laterally.

**D i s t r i b u t i o n :** Known only from the type locality.

**E c o l o g i c a l n o t e s :** The new species was found at the edge of a small snowfield unter large stones (partly situated in an icy layer and frozen to the ground) and is associated with *Nebria belloti* FRANZ, an endemic species in the Montes de León and known up to now from the Peña Trevinca, the Sierra Segundera and the Sierra del Teleno (ALONSO, NOVOA & EIROA 1987, ZABALLOS & JEANNE 1994), and with a species of *Haptoderus*, of which taxonomic status is momentarily still unclear. We could not find *L. oopterus*, which is reported from the area of the Lago de la Baña, a locality situated northwest of the type locality of the new species, and from the Puerto del Manzanal (ZABALLOS & JEANNE 1994).

**E t y m o l o g y :** The new species is dedicated to our friend and colleague, the Galician entomologist Javier P. Valcárcel, who has helped us very much on our excursions in Galicia.

### Zusammenfassung

Eine neue Art (*Leistus valcarceli* spec. nova), zur Gruppe von *L. angusticollis* DEJEAN gehörend, wird aus der Sierra de Cabrera Baja in Nordwest-Spanien beschrieben.

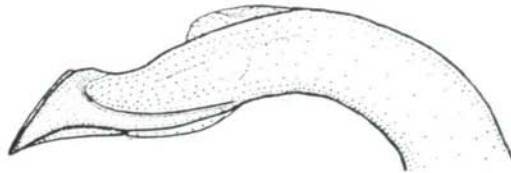
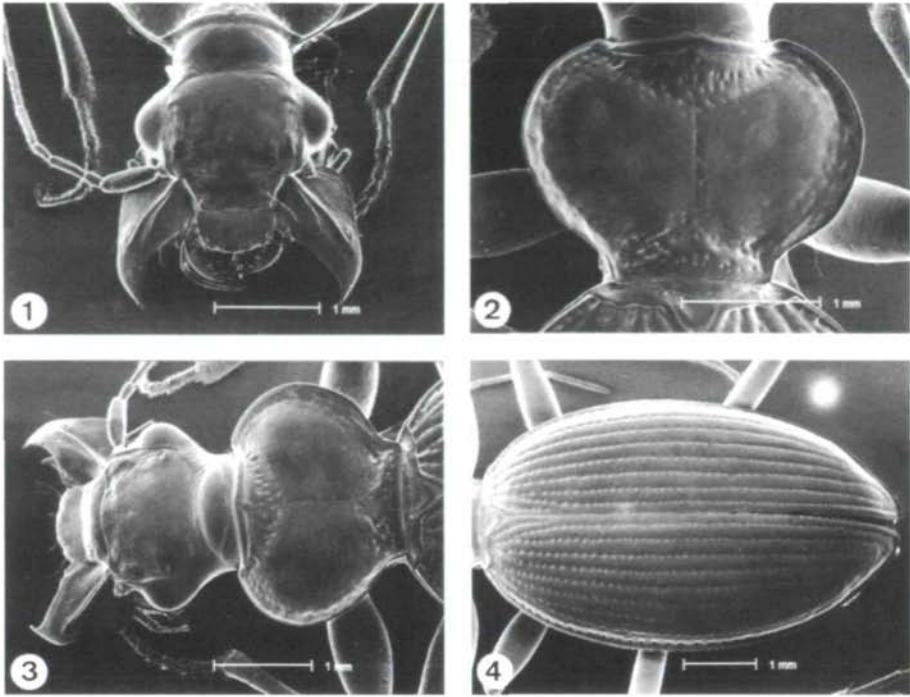
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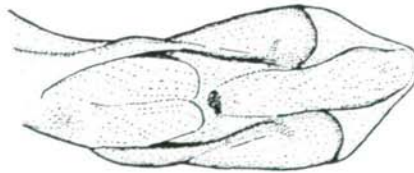
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5



**Figs. 1-5:** *Leistus valcarceli* spec. nova. 1 - Head. 2 - Pronotum. 3 - Head and pronotum. 4 - Elytra. 5 - Median lobe, apical part, dorsal and lateral aspect (Figs 1-4: Paratype. Fig. 5: Holotype. Scale bar 1 mm - fig. 5).

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