

## Revisionary notes on *Chelonus* Jurine and *Anomala* Von Block (Hymenoptera: Braconidae, Cheloninae)

by

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**ABSTRACT.** — The genus *Anomala* Von Block, 1799 is synonymized with *Chelonus* Jurine in Panzer, 1801. Its type-species, *Anomala integra* Von Block, 1799 is recognized as a valid species of *Chelonus*. A neotype for *Ichneumon oculator* Fabricius, 1775 (type-species of *Chelonus*) is designated, described and illustrated. A lectotype is designated for *Chelonus submuticus* Wesmael, 1835 and partly illustrated.

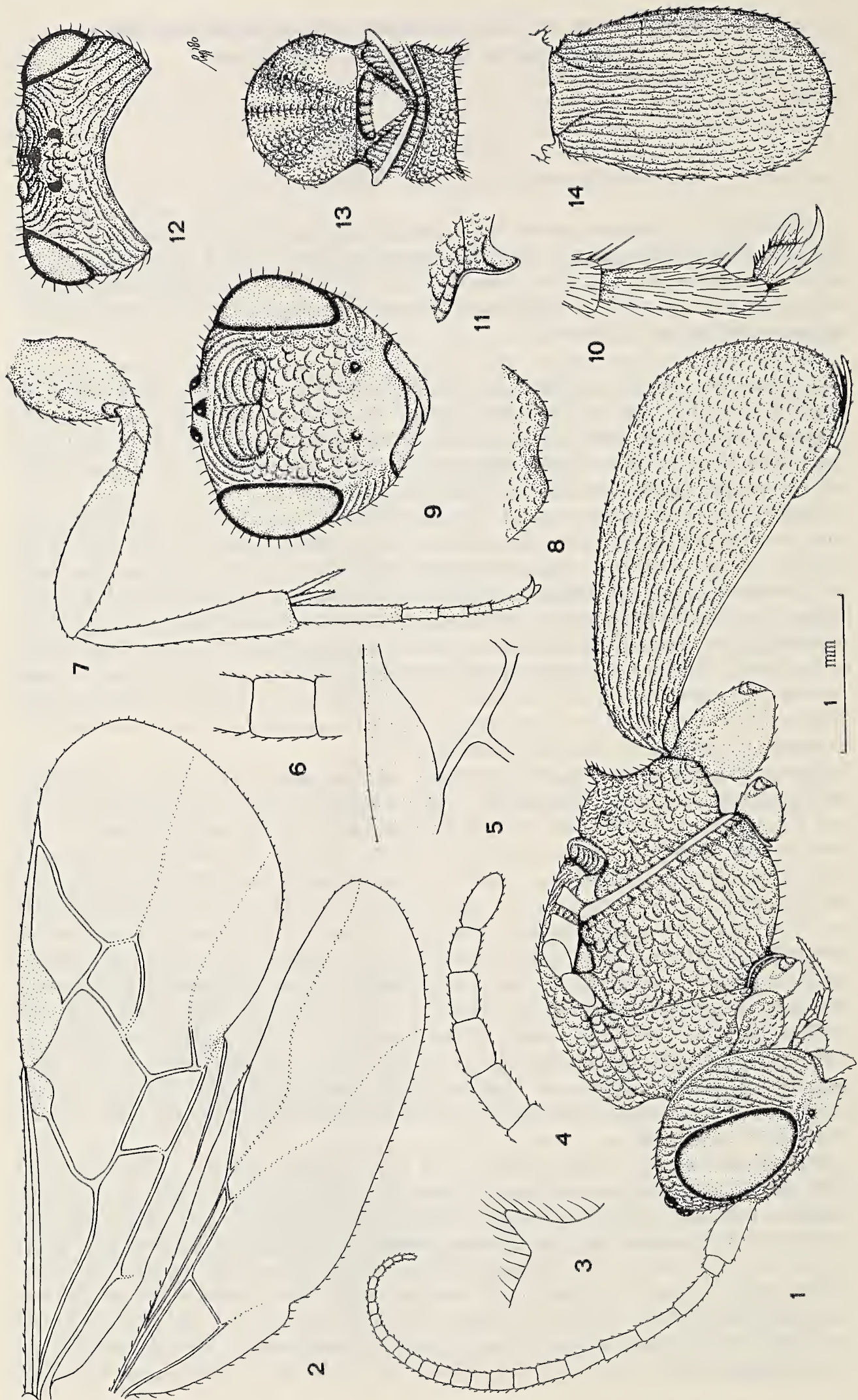
In 1799 Von Block published an overlooked paper entitled "Verzeichniss der merkwürdigsten Insekten im Plauischen Grunde", inserted in a series of papers about the "Plauische Grund bei Dresden" edited by W. G. Becker. Owing to the kindness of Mr. T. Huddleston and Miss P. Gilbert (British Museum (Natural History), London) I could examine a part of this paper, which is not available in the Netherlands.

Besides descriptions of several taxa (Diptera, Heteroptera, and among the Hymenoptera three new species of Chrysididae (*Chrysis episcopalis*, *C. carinata*, and *C. bistridentata*), it contains the description of the new genus *Anomala*, with the new species *Anomala integra* as the only species included. Mr. Huddleston directed my attention to this genus because it seemed to belong to the Braconidae. Unfortunately it proved to be a senior synonym of a very well known genus of the Braconidae-Cheloninae, viz., *Chelonus* Jurine in Panzer, 1801. The genus *Anomala* Von Block, 1799 has been overlooked by hymenopterists since its description and the name *Anomala* has been used for the well-known beetle-genus of the Rutilinae (Scarabaeoidea). Therefore I have requested the suppression of the name *Anomala* Von Block, 1799 by the International Commission on Zoological Nomenclature.

There remains the identity of the type-species: *Anomala integra* Von Block, 1799, which is well illustrated (fig. 17) and described (p. 19-20). *Anomala integra* is an obvious nomen oblitum, but since comparatively little has been published on this group and the taxonomy is confused, it seems wiser to retain the name for the moment. The type (if it had survived) should be in the Vienna Museum. However, it could not be found and is probably destroyed by fire in 1848 (Dr. Max. Fischer, in litt.), and its identity should be based solely on the original description. Considering the apically elliptical carapace, the colour of the legs and metasoma, and the short marginal cell of the fore wing (vein 1-R1 (metacarp) distinctly shorter than distance from wing apex to apex of marginal cell), it is in all probability a senior synonym of *Chelonus oculator* sensu Herrich-Schäffer, 1838 (nec Fabricius, 1775 & Panzer, 1799). Because Herrich-Schäffer (1838: fig. 154-14c) incorrectly attributes authorship of his "oculator" to Fabricius, it is merely a misidentification and the name *oculator* cannot be used for this species. The correct name for *Ichneumon oculator* sensu Herrich-Schäffer should be *Chelonus integer* (Von Block, 1799) if no older synonym exists of this very common species and if the generic name *Anomala* Von Block is suppressed.

Another problem is the correct name for the real *Ichneumon oculator* of Fabricius (1775: 338). Unfortunately the type could not be found in the British Museum (Morley in Zimsen, 1964: 364) and seems to be lost. The type is a specimen from England in the Banks Collection; probably a male because of the long antennae. Judging from the original description by Fabricius it is close to *C. macrocerus* Thomson, 1874 because of the probably yellowish parastigma ("Alae hyalinae, puncto marginali flavo") and the reddish legs. *Chelonus oculator* Fabricius was synonymized with *C. inanitus* (Linnaeus, 1767) by Panzer (1799: 3) and Fabricius himself (1804: 68). This synonymy is incorrect as proved by the examination of the holotype of *C. inanitus* (Linnaeus) (figs. 16, 19, 20, 24, 27, 30, 31, 34, 35) by Mr. T. Huddleston, who kindly







provided me his notes and figures. The holotype of *inanitus* is kept in the collection of the Linnean Society, London, and is fairly well preserved; it bears the non-Linnean label "inanita 920 ex. descr.". It differs from the description by the largely reddish hind tibia (probably "apice" had been omitted by accident from "exceptis tibiis nigris", as suggested by Marshall (1885: 120)) and the postero-ventral edge of the carapace is distinctly emarginate (not visible from above and therefore easily overlooked). The shape of the carapace and of the vein r of the fore wing exclude the synonymy of *inanitus* with *oculator* as interpreted by Panzer, whom I consider to be the first revisor of *I. oculator* Fabricius; he supplemented the description by a useful figure (1799: 3, figs. b, c).

Because *Ichneumon oculator* is the type-species of the genus *Chelonus* and the original description by Fabricius does allow assignment to other genera (e.g., *Ascogaster*) I designate here for the purpose of nomenclatorial stability the specimen described below as neotype of *Ichneumon oculator* Fabricius, 1775.

*Ichneumon oculator* Fabricius (figs. 1-14)

Fabricius, 1775: 338 (no. 61)

*Chelonus oculator*; Shenefelt, 1973: 854.

Neotype, ♀, length of fore wing 4.3 mm, of body 5.7 mm

Head. — Antenna distinctly widened medially (fig. 1), ventro-apically with specialized sensory areas (depressed in dried specimen); antennal segments 25, length of 3rd segment 1.1 times 4th segment, length of 3rd and 4th segment 3.0 and 2.6 times their width, respectively, 16th segment quadrate (fig. 6), penultimate segment 1.5 times its width; length of maxillary palp 0.6 times height of head; hypostomal carina remain removed from occipital carina; eye densely setose; eye in dorsal view 1.2 times temple (fig. 12); temple slightly narrowed posteriorly, its ventral half very coarsely rugose (fig. 1); POL : Ø ocellus : OOL = 9 : 2 : 8; frons and vertex very coarsely rugose and rather flat (fig. 12); face flat, very coarsely reticulate; clypeus rather flat and finely punctate; length of malar space equal to basal width of mandible.

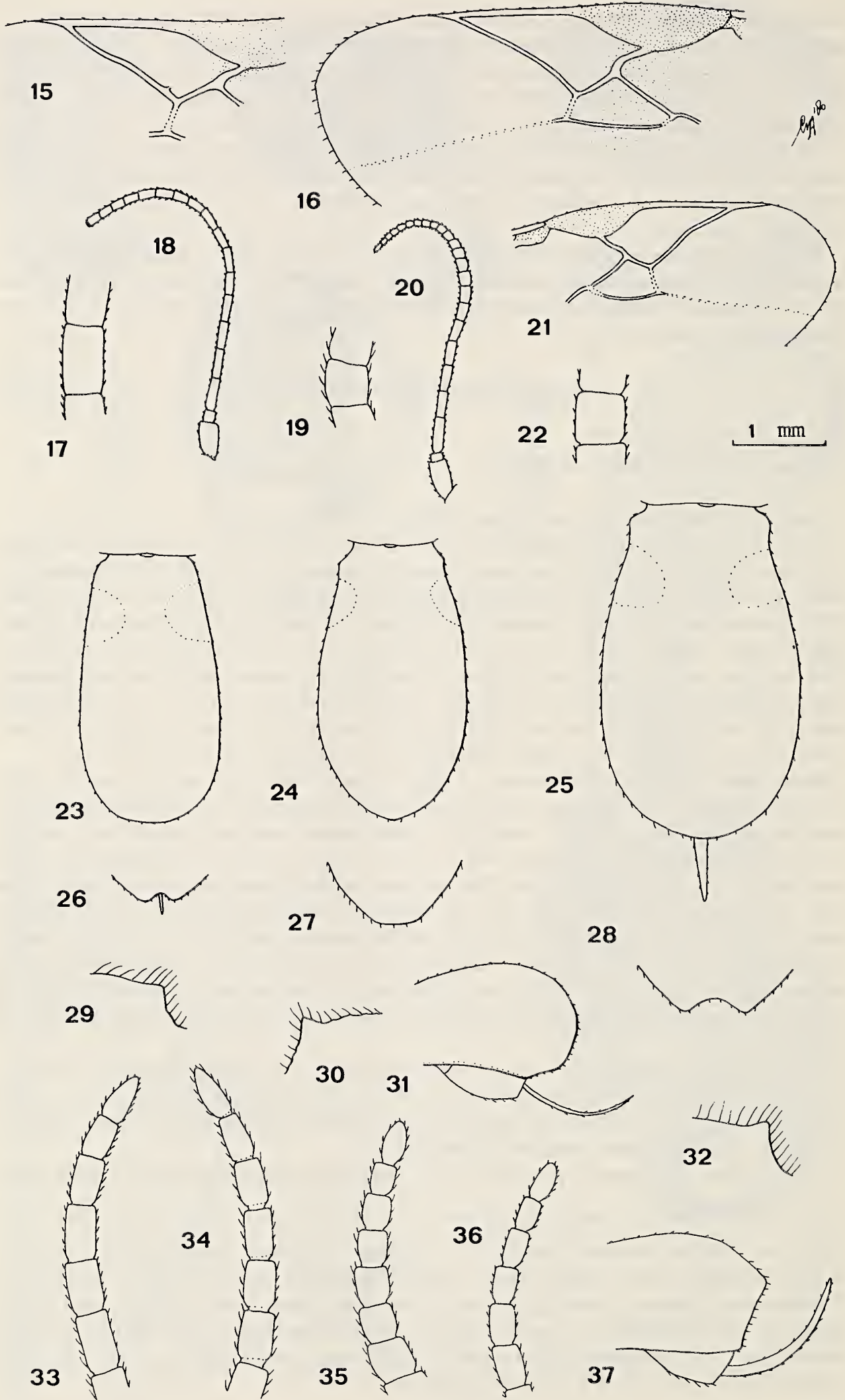
Mesosoma. — Length of mesosoma 1.4 times its height; side of pronotum coarsely reticulate, but ventrally more punctate and antero-ventrally smooth (fig. 1); prepectal carina very wide, about reaching apex of fore coxa (fig. 1), lamelliform; meso- and metapleuron completely coarsely reticulate-rugose; pleural sulcus widely crenulate; notauli not impressed, but its area coarsely reticulate; lateral lobes of mesoscutum medially punctate and laterally reticulate (fig. 13), middle lobe similar but with an additional medio-longitudinal coarsely crenulate band; scutellar sulcus deep, with 6 carinae; scutellum smooth, except for the crenulate margin, medio-posteriorly narrowly rugulose; metanotum with medial carina, medially obtusely protruding (figs. 1, 13); propodeum coarsely reticulate, its posterior part somewhat longer than the antero-dorsal part; propodeal spiracle small, round; propodeal tubercle large, rather acute (fig. 3).

Wings. — Fore wing: 1-SR+M absent; r almost straight, its basal half linear with 3-SR (fig. 5); r: 3-SR : SR1 = 5 : 9 : 27; SR1 curved; 1-CU1 : 2-CU1 = 8 : 18; 2-SR : 3-SR : r-m = 13 : 9 : 6; 2-R1 short (fig. 2); 2-SR completely sclerotized anteriorly. Hind wing: cu-a long, slightly reclivous; marginal cell subparallel-sided apically (fig. 2).

Legs. — Hind coxa dorsally punctate, laterally punctulate; tarsal claws slender, finely pecti-

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Figs. 1-14, *Chelonus oculator* (Fabricius), ♀, neotype. 1, habitus, lateral aspect; 2, wings; 3, propodeal tubercle, dorso-lateral aspect; 4, apex of antenna; 5, detail of vein r of fore wing; 6, 16th antennal segment; 7, hind leg; 8, apex of metasoma, dorso-apical aspect; 9, head, frontal aspect; 10, outer hind claw; 11, detail of lateral carina of mesoscutum, posterior part; 12, head, dorsal aspect; 13, mesosoma, dorsal aspect; 14, metasoma, dorsal aspect. 1, 2, 7-9, 12: scale-line (= 1 ×); 3, 5, 11: 2 ×; 4, 6, 10: 5 ×; 13, 14: 0.6 ×.





nate basally, with no lobe (fig. 10); length of femur, tibia, and basitarsus of hind leg 3.1, 5.2, 6.0 times their width, respectively; length of hind tibial spurs 0.5 and 0.6 times hind basitarsus; ventral row of setae at tarsi not distinctly visible at 80 ×.

Metasoma. — Length of carapace (consisting of three basal segments) 1.6 times its maximum width, basal half of surface coarsely longitudinally rugose (fig. 14), apically less pronounced, but completely sculptured apico-laterally (fig. 1); dorsal carinae distinct in basal 1/7 of carapace; carapace robust (fig. 14), medially lower than subapically (fig. 1), apically obtuse and closed; ventro-apical edge of carapace broadly impressed (fig. 8); length of ovipositor sheath 0.16 times fore wing, rather slender (fig. 1); hypopygium large, truncate apically.

Colour. — Black (including palpi and coxae); parastigma brown; pterostigma and wing veins (but 1-M, M+CU1, 1+2A, and 1A of fore wing yellowish), and tegulae, dark brown; femora (except for the black bases), and tibiae (but apex of hind tibia slightly infuscated), reddish; pair of basal patches near base of carapace, and basitarsi largely, whitish-yellow; rest of tarsi (including apices of basitarsi), (dark) brown; wing membrane (rather) evenly light brown, only basally less distinct; below pterostigma similarly darkened as apical quarter of fore wing.

Neotype in Rijksmuseum van Natuurlijke Historie, Leiden: "Naarden (Netherlands), 28.VIII.1975, B. v. Aartsen".

Note. The selection of the neotype is in agreement with the current interpretation of *oculator*. The wide prepectal carina is not uncommon among the Chelonini, but among the species of the *inanutus*-groep (to which *oculator* belongs) I have examined it is the only species with this character-state. The inclusion of *Ichneumon atomos* Rossi, 1790 in *Chelonus* (and its synonymy with *oculator* or *inanutus*) is incorrect; because of the long ovipositor it should be transferred to the genus *Triaspis* Haliday (Helconinae).

*Chelonus submuticus* Wesmael (figs. 15, 17, 18, 23, 26, 29, 33)

Wesmael, 1835: 218-219; Shenefelt, 1973: 869.

This species has been confused with *integer* as interpreted in this paper. Wesmael based this species on 1 ♀ and 2 ♂ of the typical form (with white patches at the base of the carapace) and 3 ♂ of his var. 1. About the ♀ he stated that the apex of the metasomal carapace is deeply emarginate ("ano profundo emarginato"). In the Wesmael Collection this ♀ (figs. 15, 17, 18, 23, 26, 29) could be found and is designated here as lectotype. There is another ♀ without such emargination of the carapace which cannot be a type; however it is conspecific, showing that this depression varies considerably within the species. Additionally there is 1 ♂ without white patches (var. 1 of Wesmael) and 4 ♂ with white patches (but in one specimen small). This group of males may partly consist of paralectotypes, but which specimens they are is uncertain. The lectotype of *Chelonus submuticus* Wesmael has the antenna not widened medially (fig. 18), the 16th segment is about 1.7 times its width, the carapace is medially about as high as apically, and the marginal cell of the hind wing is slender. The lectotype is housed in the Koninklijk Belgisch Instituut voor Natuurwetenschappen at Brussels.

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Figs. 15, 17, 18, 23, 26, 29, 33, *Chelonus submuticus* Wesmael, ♀, lectotype (but 33 from ♂, Wesmael Coll.). Figs. 16, 19, 20, 24, 27, 30, 31, 34, 35, *Chelonus integer* (Von Block), ♀, Sweden, Solna, Bergshamra (but 34 from ♂, France, Cheval Blanc). Figs. 21, 22, 25, 28, 32, 36, 37, *Chelonus inanutus* (Linnaeus), ♀, Norway, Ringebu. 15, 16, 21: marginal cell of fore wing; 17, 19, 22: 16th antennal segment; 18, 20: antenna of ♀; 23, 25: metasoma, dorsal aspect; 26-28: apex of metasoma, dorso-apical aspect; 29, 30, 32: propodeal tubercle, dorso-lateral inner aspect; 31, 37: apex of metasoma, lateral aspect (with ovipositor exerted, usually more or less retracted); 33, 34: apex of antenna of ♂; 35, 36: apex of antenna of ♀. 18, 20, 21, 23-28, 31, 37: scale-line (= 1 ×); 15, 16, 29, 30, 32: 2 ×; 17, 19, 22, 33-36: 5 ×.



## ACKNOWLEDGEMENTS

I wish to express my sincere thanks to Mr. T. Huddleston and Miss P. Gilbert (both Dept. of Entomology, British Museum (Natural History)), because without their help this paper could not have been written. To Mr. B. van Aartsen ('t Harde), Dr. P. Dessart (Brussel), Dr. M. Fischer (Wien), Mr. G. van Rossem (Ede), and Drs. C. J. Zwakhals (Arkel) I am grateful for gift of specimens and/or loan of types.

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**In memoriam W. L. Blom**  
**3 nov. 1906-29 maart 1982**

door

R. de JONG

Het plotselinge overlijden van Willem Lubertus Blom op 29 maart 1982 kwam als een schok voor zijn vele vrienden. Sinds hij toetrad tot de NEV in 1943 was hij een trouw bezoeker van de vergaderingen en hoewel fysiek niet sterk uit de kluiten gewassen, maakte zijn markante persoonlijkheid het onmogelijk hem over het hoofd te zien. Als ik me de vele genoeglijke uren met hem voor de geest haal, zie ik steeds een lachend gezicht voor me. Hij genoot intens van het leven en wilde graag anderen laten meegenieten. Als lepidopteroloog verwierf hij tot ver in het buitenland faam als kenner van de vlinderfauna van Iran, welk land hij negenmaal bezocht, maar zijn verzamelactiviteiten brachten hem nog verder, tot in N. Pakistan en Nepal. Een poging om in China te verzamelen mislukte. Hij was een uitstekend verzamelaar en met name het materiaal, dat hij meebracht uit Iran, was een zeer belangrijke aanvulling op wat reeds in Nederlandse musea aanwezig was op het gebied van Palaearctische dagvlinders. Zijn collectie werd aan het Rijksmuseum van Natuurlijke Historie in Leiden geschonken.

Hij was een voorbeeld voor velen. Mogen zijn kinderen zich gesterkt voelen door de grote waardering en diepe gevoelens van vriendschap, die zovelen voor hem koesterden.

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