



New record of *Platycerus caprea* (De Geer, 1774) from Albania (Coleoptera: Lucanidae)

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Abstract. A locality record of *Platycerus caprea* (De Geer, 1774) from Northern Albania is given; it is the first verified one for the country, due to the existing confusion concerning the old records of the two closely related species of the stag beetles *P. caprea* and *P. caraboides caraboides* (Linnaeus, 1758). A locality record for *Dorcus parallelipedus* (Linnaeus, 1758) is also given.

Riassunto. Nuova segnalazione di *Platycerus caprea* (De Geer, 1774) per l'Albania (Coleoptera: Lucanidae). Vengono fornite le località di rinvenimento di due specie di cervi volanti nel nord dell'Albania. Il dato relativo a *Platycerus caprea* (De Geer, 1774) è il primo verificato per il Paese, data la confusione esistente fra le vecchie citazioni delle due specie affini *P. caprea* e *P. caraboides caraboides* (Linnaeus, 1758). Viene anche segnalata una località di raccolta di *Dorcus parallelipedus* (Linnaeus, 1758).

Përmbledhje. Sinjalizim i ri i *Platycerus caprea* (De Geer, 1774) në Shqipëri (Coleoptera: Lucanidae). Bëhen të ditura zonat e gjetjes së dy llojeve të Lucanidae në Veri të Shqipërisë. E dhëna për sa i përket *Platycerus caprea* (De Geer, 1774), është e para që është hasur në Shqipëri sepse ka dhe konfuzion midis emrave të vjetër të dy llojeve të ngjashme *P. caprea* dhe *P. caraboides caraboides* (Linnaeus, 1758). Sinjalizohet gjithashtu një zonë e gjetjes së *Dorcus parallelipedus* (Linnaeus, 1758).

Key words. Albania, Lucanidae, *Platycerus*, *Dorcus*, new record.

During a trip to Albania in summer 2017, the second author collected three specimens of stag beetles (Coleoptera: Lucanidae). Two of them belong to the common and widespread species *Dorcus parallelipedus* (Linnaeus, 1758), while a careful study (using the identification keys proposed by DELLACASA, 1966 and FRANCISCOLO, 1997) of the third one revealed that it is a female specimen of *Platycerus caprea* (De Geer, 1774), whose record is the first verified one of this species for the country of Albania.

We believe that this kind of country records are always important for a better understanding of the species distribution. Lucanidae is one of the most specialized families of saproxylic beetles, being the species saproxylophagous at larval stage and thus extremely important for forest ecosystems (BARTOLOZZI *et al.*, 2016a). The role and importance of saproxylic beetles have been largely discussed (see e.g. CARPANETO *et al.*, 2015) and we refer to that article for further reading on this subject. The Mediterranean species of saproxylic beetles are now the focus of a dedicated IUCN Red List (in preparation).

Examined material

Platycerus caprea (De Geer, 1774)

Albania: 1 female, Pass of Theth, National Park Kombëtar i Thethit Okal, UTM 34T CK9493 (datum ED50), 1689 m, 23.VI.2017, leg. S. Cianfanelli & M. Calcagno (Museo di Storia Naturale dell'Università di Firenze, collection number 18557).

Dorcus parallelipedus (Linnaeus, 1758)

Albania: 2 males, Syri I Kalter, c/o Blu Eye Spring, UTM 34S DK3119 (datum ED50), 146 m, 30.VI.2017, leg. S. Cianfanelli & M. Calcagno (Museo di Storia Naturale dell'Università di Firenze, collection number 18558).

The Theth National Park (in Albanian: Parku Kombëtar i Thethit) is located in Northern Albania, near the border with Montenegro and Kosovo (Fig. 1); it covers an area of 2,630 hectares and is on the Albanian Alps. The specimen of *Platycerus caprea* was collected at about 1700 m, under a log lying on the ground, in a shadow area covered by *Fagus sylvatica* Linnaeus, 1753 and *Pinus heldreichii* H. Christ, 1863 at the base of a rocky limestone wall (Fig. 2).

In Albania, two species of *Platycerus* are present: *P. caprea* and *P. caraboides caraboides* (Linnaeus, 1758), but their distribution in the country is not clear at all, because in the past the two species were considered synonyms (see e.g. FRANCISCOLO, 1997). It is almost impossible to understand now to which species the old quotations really refer, if not examining the original material, which is sometimes very difficult to locate. MÜLLER (1938) gave quotations of the species for Albania, and he was aware of the presence of two different taxa under the name of *Systemocerus* (= *Platycerus*) *caraboides* (auct. non De Geer, 1774), but he wrote that *S. caraboides* is the species more related to *Fagus* at higher altitudes, while *S. cribratus* (= *caprea*) is more related to *Quercus* at lower altitudes. Conversely, the actual situation places *P. caprea* as more related to beeches and *P. caraboides* more to oaks, even though their larvae also feed on other plant species (FRANCISCOLO, 1997; KLAUSNITZER & SPRECHER-UEBERSAX, 2008). The morphological separation of the two taxa was clearly explained by several subsequent authors (e.g. PALM, 1956; WEISE, 1960; DELLACASA, 1966; ESPAÑOL, 1967; KREISSL, 1995), but the problem remains about the quotations given by MÜLLER (1938). In fact, he wrote that *P. caraboides* is present in Albania at Vermosa (= Vermosh) but most probably the species was in reality *P. caprea*; he also quoted *S. cribratus* from Prizren (actually in Kosovo, not in Albania) but probably the species was in this case *P. caraboides*.

Given the uncertainty of the old records, KRÁL (2015) quoted *Platycerus caraboides caraboides* as first record of the species for Albania, although the species was already generically quoted for the

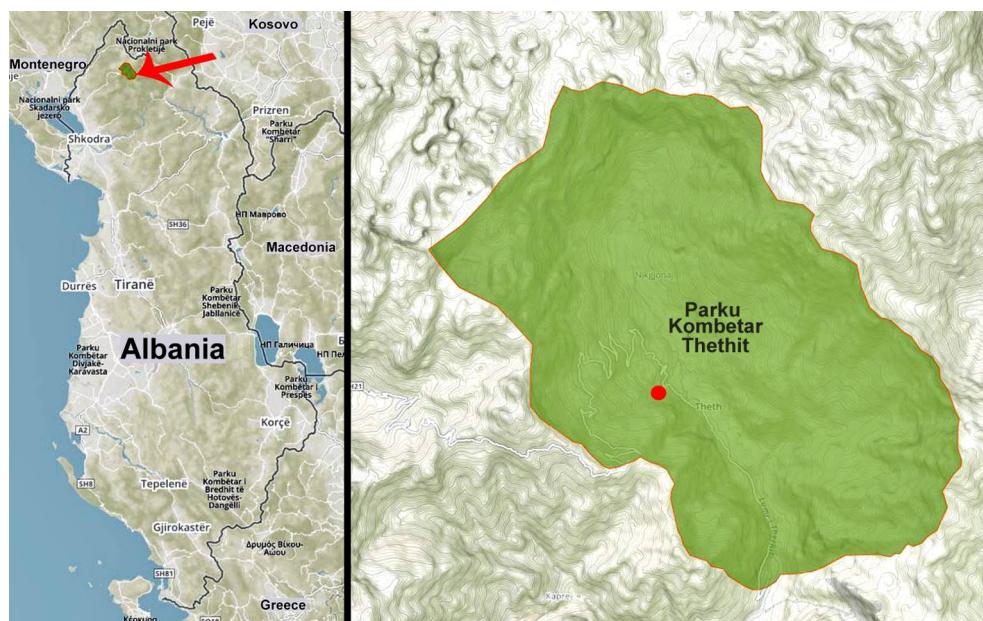


Fig. 1. Map of Albania with location of Theth National Park [© ProtectedPlanet 2014-2017] and collecting site (red dot) of *Platycerus caprea*.



Fig. 2. Landscape of the collecting site of *Platycerus caprea* (photo by S. Cianfanelli).

country by MAES (1992) and FRANCISCOLO (1997) but without any locality data, taking the country record from HORION (1958), who in his turn got it from the aforementioned paper of MÜLLER (1938).

BARTOLOZZI *et al.* (2016a), in their recent paper on the distribution of the stag beetles in Mediterranean countries, listed six species of Lucanidae for Albania: *Sinodendron cylindricum* (Linnaeus, 1758), *Dorcus parallelipedus*, *Lucanus cervus cervus* (Linnaeus, 1758), *L. tetraodon tetraodon* Thunberg, 1806, *L. ibericus ibericus* Motschulsky, 1845, and *Platycerus caraboides caraboides*. *Platycerus caprea* had been generically quoted in the past for Albania by HORION (1958) and this quotation repeated by MAES (1992) and FRANCISCOLO (1997) without verification of the material and without any locality data. Considering the confusion made in the past for the correct identification of the two species of *Platycerus*, BARTOLOZZI *et al.* (2016a) preferred not to list *P. caprea* among the Lucanidae of Albania. With the present record, the presence of the species in the country is finally verified and thus the number of stag beetles surely quoted for Albania increases to seven. The old record from Vermosh given by MÜLLER (1938) could most probably be referred to *P. caprea* too, but it was not possible to verify this assumption.

The presence of *P. caprea* in Albania is not surprising as MIKŠIĆ (1955, 1956, 1959, 1970), BARTOLOZZI & SPRECHER-UEBERSAX (2006) and BARTOLOZZI *et al.* (2016b) already quoted the species for most of the other Balkan countries.

The preference of fallen branches and logs as oviposition sites was reported in Italy by SCACCINI (2016) for both *P. caprea* and *P. caraboides* and in Japan and China by IMURA (2010) for several oriental species of *Platycerus* and is also confirmed by our record.

References

- BARTOLOZZI L., NORBIATO M. & CIANFERONI F., 2016a. A review of geographical distribution of the stag beetles in Mediterranean countries (Coleoptera: Lucanidae). *Fragmenta entomologica*, 48 (2): 153-168.

- BARTOLOZZI L. & SPRECHER-UEBERSAX E., 2006. Lucanidae (pp. 63-77). In: LÖBL I. & SMETANA A. (ed.). Catalogue of Palaearctic Coleoptera. Vol. 3. Scarabaeoidea - Scirtoidea - Dascilloidea - Buprestoidea - Byrrhoidea. *Apollo Books*, Stenstrup, 690 pp.
- BARTOLOZZI L., SPRECHER-UEBERSAX E. & BEZDĚK A., 2016b. Family Lucanidae Latreille, 1804 (pp. 58-84). In: LÖBL I. & LÖBL D. (ed.). Catalogue of Palaearctic Coleoptera. Volume 3. Scarabaeoidea - Scirtoidea - Dascilloidea - Buprestoidea - Byrrhoidea. Revised and updated Edition. *Brill*, Leiden, Boston, XXVIII + 983 pp.
- CARPANETO G.M., BAVIERA C., BISCACCIANTI A.B., BRANDMAYR P., MAZZEI A., MASON F., BATTISTONI A., TEOFILI C., RONDININI C., FATTORINI S. & AUDISIO P. (ed.), 2015. A Red List of Italian Saproxyllic Beetles: taxonomic overview, ecological features and conservation issues (Coleoptera). *Fragmenta entomologica*, 47 (2): 53-126.
- DELLACASA G., 1966. Sulle specie italiane di *Platycerus* (Col. Lucanidae). *Bollettino della Società entomologica italiana*, 96 (3-4): 39-45.
- ESPAÑOL F., 1967. Los *Platycerus* Fourcroy del Mediterraneo occidental (Col. Lucanidae). *Graellsia*, 23: 65-70.
- FRANCISCOLO M.E., 1997. Fauna d'Italia. Vol. XXXV. Coleoptera Lucanidae. *Calderini Editore*, Bologna, XI + 228 pp.
- HORION A., 1958. Lucanidae (pp. 278-287). In: Faunistik der mitteleuropäischen Käfer. Band 6: Lamellicornia. *Fayel Editions*, Überlingen-Bodensee, 343 pp.
- IMURA Y., 2010. The genus *Platycerus* of East Asia. *Taita Publishers & Roppon-Ashi Entomological Books*, Czech Republic & Japan, 240 pp.
- KLAUSNITZER B. & SPRECHER-UEBERSAX E., 2008. Die Hirschkäfer oder Schröter. Lucanidae. 4., stark bearbeitete Auflage. *Die Neue Brehm Bücherei*, Bd. 551, *Westarp Wissenschaften*, Hohenwarsleben, 161 pp.
- KRÁL D., 2015. Lucanidae (p. 3). In: ZIANI S., BEZDĚK A., BRANCO T., HILLERT O., JÁKL S., KRÁL D., MANTIĆ M., RÖSSNER E. & SEHNAL R. New country records of Scarabaeoidea (Coleoptera) from the Palaearctic region. *Insecta Mundi*, 0409: 1-36.
- KREISSL E., 1995. Zu *Platycerus caraboides* L. und *Platycerus caprea* Deg. (Col., Lucanidae). *Entomologische Nachrichten*, 39 (3): 150-151.
- MAES J.-M., 1992. Lista de los Lucanidae (Coleoptera) del mundo. *Revista nicaraguense de Entomología*, 22: 1-60; 22B: 61-121.
- MIKŠIĆ R., 1955. Fauna Insectorum Balcanica - Lucanidae (Coleoptera - Lamellicornia). *Naučno društvo NR Bosne i Hercegovine, Sarajevo, Radovi 5, Odjeljenje Prirodno-tehničkih Nauka*, 1: 223-235.
- MIKŠIĆ, R. 1956. Zweiter Nachtrag zur "Fauna Insectorum Balcanica-Scarabaeidae", inc. Übersicht der Scarabaeidenfauna der Balkanländer. Index der in diesem Nachtrag zum erstenmal angeführten Lokalitäten. *Acta Musei Macedonici Scientiarum Naturalium Skopje*, 4: 139-214.
- MIKŠIĆ R., 1959. Über die Verbreitung der Arten der Gattung *Platycerus* Fourcr. (= *Systemocerus* Ws.) in Jugoslawien (Coleoptera-Lucanidae). *Entomologisk Tidskrift*, 80 (1-2): 33-38.
- MIKŠIĆ R., 1970. Lucanidae (pp. 61-63). In: Katalog der Lamellicornia Jugoslawiens (Insecta: Coleoptera). *Institut za Šumarstvo, Posebno Izdanje*, Sarajevo. 71 pp.
- MÜLLER G., 1938. Note su alcuni Coleotteri Lamellicorni (Scarabaeidae, Lucanidae). *Bollettino della Società entomologica italiana*, 70 (4): 55-60.
- PALM T., 1956. *Systemocerus caraboides* L. och *cribratus* Muls. (Col. Lucanidae). *Entomologisk Tidskrift*, 77 (1): 18-24.
- SCACCINI D., 2016. First record of oviposition scar in two European *Platycerus* species: *P. caprea* (De Geer, 1774) and *P. caraboides* (Linnaeus, 1758) (Coleoptera: Lucanidae). *Bulletin de la Société royale belge d'Entomologie*, 152 (2): 142-151.
- WEISE E., 1960. Die paläarktischen Arten der Gattung *Platycerus* Fourcr. (Col. Lucanidae). *Entomologische Blätter*, 56 (3): 133-149.

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