



Platycleis galvagnii, a peculiar new bushcricket from Sardinia (Italy) (Insecta, Orthoptera, Tettigoniidae)

PAOLO FONTANA¹, FILIPPO M. BUZZETTI², ROY M.J.C. KLEUKERS³ & BAUDEWIJN ODÉ⁴

¹Fondazione Edmund Mach - Istituto Agrario di San Michele all'Adige. Centro Trasferimento Tecnologico - Fitoiatria. Via Mach, 1 - 38010 San Michele all'Adige, Trento. Italy. E-mail: paolo_api.fontana@iasma.it

²Via Trento, 59D I-36071 Arzignano (Vicenza), Italy. E-mail: buzzjazz@hotmail.com

³European Invertebrate Survey - The Netherlands / Netherlands Centre for Biodiversity Naturalis, Postbus 9517, 2300 RA Leiden, The Netherlands. E-mail: roy.kleukers@ncbnaturalis.nl

⁴P.C. Hoofstraat 149, 1071 BT Amsterdam, The Netherlands. E-mail: baudewijn.ode@hetnet.nl

Abstract

Platycleis galvagnii n. sp. from Sardinia (Italy) is described. In general habitus the new taxon is close to *Platycleis* sensu strictu, albeit very small in size. When looking at other characters the species does not seem to fit within one of the groups recognised within *Platycleis* s.l., but for the moment the species is placed in *Platycleis* s.s.. The species is characterised by a range of morphological and bioacoustic characters. Its real affiliations with other species within the *Platycleis* complex need to be established further. For the moment the species is known only from the type locality, Gennargentu mountain in the central part of Sardinia.

Key words: *Platycleis galvagnii* n. sp., bioacoustics, Gennargentu, Sardinia, Italia

Introduction

The Orthoptera fauna of Sardinia is relatively well studied (A. Costa 1882, 1883, 1884, 1885, 1886, Nadig & Nadig 1934, Galvagni 1976, 1978, 1990, Galvagni & Massa 1980, Galvagni *et al.* 2007, Ingrisch 1983, Schmidt & Hermann 2000, Massa 2010). In total eight taxa within the genus *Platycleis* s.l. are mentioned from Sardinia: *P. (Platycleis) falx laticauda* Brunner, 1882, *P. (Platycleis) grisea grisea* (Fabricius, 1781), *P. (Platycleis) intermedia intermedia* (Serville, 1839), *P. (Platycleis) intermedia umbilicata* (A. Costa, 1855), *P. (Platycleis) sabulosa* Azam, 1901, *P. (Tessellana) tessellata* (Charpentier, 1825) and *P. (Montana) stricta* (Zeller, 1849).

During orthopterological field expeditions in Sardinia in August 1999 and September 2002 we collected some specimens clearly belonging to *Platycleis* Fieber, 1853 s.l., but clearly differing in morphology and sound from other species. This species is described here as *Platycleis galvagnii* n. sp.

Material and methods

The collected specimens and related data are listed below. All the measurements were taken with a micrometric ocular on a stereomicroscope (Optech EMX-210-2).

Recordings were made with Tascam DA-P1 dat-recorder, with a Sennheiser microphone, module K6 with head ME40. The song files were sampled at 44.1 kHz and 16 bit and analysed with Bias Peak software. Also ultrasonic recordings were made through a batdetector (Pettersson D240) with time expansion. This resulted in 8 bits 300kHz sampled fragments in the batdetector, played back with a 10 times lowered speed, with a frequency response of 1–12kHz (originally 10–120kHz).

The following abbreviations are used for the collections: MSNG: Museo civico di Storia Naturale G. Doria, Genoa, Italy; PFC: Paolo Fontana private collection, Isola Vicentina, Italy; FBC: Filippo Maria Buzzetti private collection, Arzignano, Italy; RKC: Roy M.J.C. Kleukers private collection, Leiden, The Netherlands.