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First record of *Brachytron pratense* (Müller, 1764) in Sicily (Odonata Aeshnidae)

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ABSTRACT *Brachytron pratense* (Müller, 1764) is a small Odonata Aeshnidae widespread throughout most of Europe and Central-northern Italy, but up to now never recorded in Sicily. During the spring 2015, some specimens of this species were observed and photographed for the first time at the swamp lake "Pantano Cuba", in the southeast coast of Sicily, near to Pachino (Syracuse). This record represents now the southernmost Italian locality for this species.

KEY WORDS Pantano Cuba; Odonata; dragonflies; Stiftung Pro Artenvielfalt; Sicily.

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INTRODUCTION

Brachytron pratense (Müller, 1764) is a small Odonata Aeshnidae that is often confused with others species belonging to the genus *Aeshna* Vander Linden, 1820; however, unlike these, it can be observed in flight early in March and it presents some peculiar morphological characters. It is a generally localised species, with a Central European distribution which extends to Balkan and Mediterranean region. Its range includes the west of the Urals, France (Corsica included), Netherlands, Ireland, United Kingdom, Switzerland, Austria, Germany, Slovenia, Croatia, Czech Republic, Slovakia, Greece, Denmark, Finland, Norway, Sweden, Poland, Romania, Estonia, Latvia, Lithuania, Belarus and Russia (Askew 2004; Dijkstra & Lewington, 2006).

In Italy it is an uncommon species and appears more widespread in northern regions, with the exception of Liguria and Val D'Aosta (Fig. 1). However, in the central and southern regions only few isolated localities are known, so that a good definition of areal borders is precluded (Riservato et al., 2014a). Until now the species had never been reported for Sicily (Riservato et al., 2014b) and the known southernmost record was in Calabria, near Lamezia Terme (Fig. 1). Therefore, this new record extends southward the known Italian distribution of this species and represents now its southernmost Italian locality.

MATERIAL AND METHODS

During a biodiversity monitoring program promoted by the German "Stiftung Pro Artenvielfalt - Pro Biodiversity Foundation" at the swamp lake "Pantano Cuba", since April 2015 we have observed and photographed some specimens of *B.*

pratense. Data were collected during odonatologic surveys from March 2015 to December 2015. Surveys have been conducted regularly every week at the same location and with the same method: transects traversed on foot, collecting and releasing the specimens with aerial nets for identification. Moreover several macrophotos have been made on-site using a digital SLR camera.

The species shows characters so unmistakable that it was not necessary to kill and preserve the specimens captured. So they were released immediately after the identification.

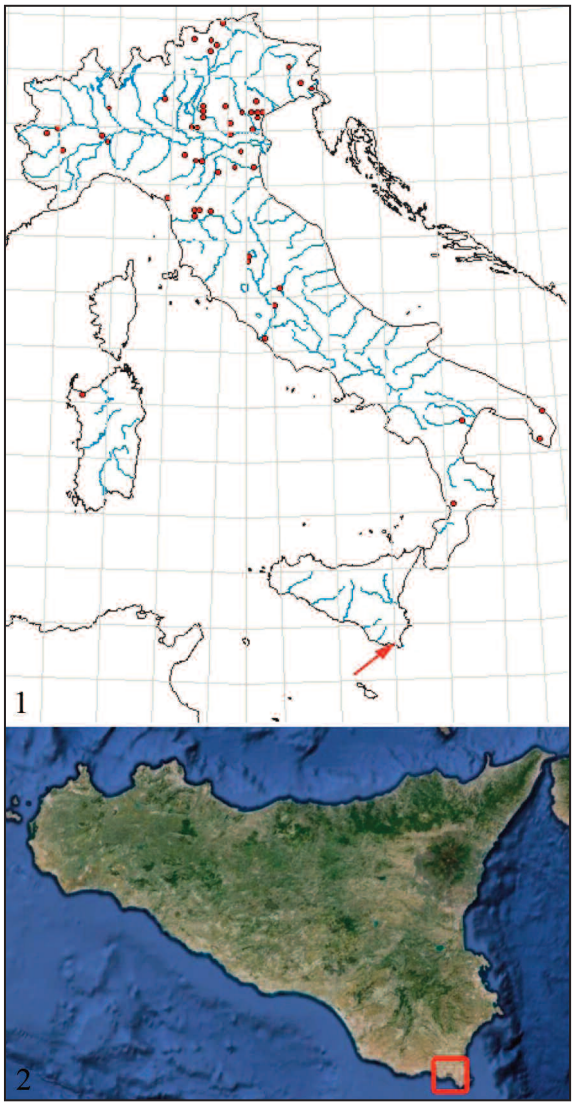

Figure 1. Distribution map of *Brachytron pratense* in Italy. Red arrow shows the new record area (edit from CKmap).
Figure 2. Location of "Riserva dei Pantani della Sicilia sud-orientale" (Pachino, Syracuse), new locality record for *Brachytron pratense* (from Google Earth).

The place of occurrence, Pantano Cuba (36°42'26.71"N; 15°1'39.15"E), along a complex of others 7 swamp lakes with different sizes, constitute a very important coastal wetland which was part of a natural reserve named "Riserva dei Pantani della Sicilia Sud-orientale" (Fig. 2), whose establishment was cancelled on May 2015. The swamp, which is located less than 500 meters from the sea, lies entirely in the municipality of Pachino, in the province of Syracuse; it has an extension of 63 hectares and it is characterized by brackish and still waters with abundant aquatic vegetation represented mainly by *Ruppia maritima* L., vegetation helophytic with *Phragmites australis* (Cav.), *Bolboschoenus maritimus* (L.) Palla, *Juncus acutus* L., *Juncus maritimus* Lam. and *Tamarix africana* Poir., as well as by halophytic vegetation zones with *Arthrocnemum fruticosum* (L.) and *Inula crithmoides* L. Near to the swamp shores there are also idle land, now entirely covered by grassy vegetation and several trees of *Acacia saligna* Labill.

RESULTS

Brachytron pratense adults have a length of 54–63 mm and a wingspan of 68–74 mm. They are unmistakable, characterized by hairy thorax and abdomen, densely covered by thin setae (Figs. 3–6). The sides of thorax are green, distinctly interrupted by two complete black lines (Fig. 3). The wings with a narrow and elongated pterostigma (Fig. 4). Males abdomen black and cylindrical, not narrowed at the base, with pairs of elongated blue spots on almost all segments and a diagnostic central yellow dot on the first abdominal tergite S1 (Figs. 4, 6). The females (Figs. 3, 5) are similar to males, except for abdomen stout, browner with greenish-yellow (not blue) spots (Askew, 2004; Dijkstra & Lewington, 2006).

During the surveys at Pantano Cuba, several specimens of *B. pratense* were observed in at least four different occasions, always in the same site; they were adults of both sexes:

- April 9, 2015, 1 female (Figs. 3, 5): it was caught near one of the fallow fields, about 60 meters from the main water body; it was photographed and released.

Figures 3. *Brachytron pratense* female (Pachino, Pantano Cuba; 9.IV.2015): in hand (ventral-lateral view), showing the typical hairy body. Figure 5. Dorsal view of the same specimen. Figure 4. *Brachytron pratense* male (Pachino, Pantano Cuba; 1.V.2015): dorsal view (pt, pterostigma). Figure 6. *Brachytron pratense* male (Pachino, Pantano Cuba; 23.IV.2015): dorsal-lateral view (Photos by P. Galasso).

- April 23, 2015, 1 male (Fig. 6): it was observed and photographed on a branch of *Acacia saligna* near a small ditch about 130 meters from the main water body.

- May 1, 2015, 2 males: they showed territorial behaviour, one of them was photographed (Fig. 4); they were observed in a wet meadow of *Inula crithmoides* a few meters from the main water body.

- May 7, 2015, 1 male (not photographed): it was observed in full predatory activities through open meadows about 100 meters from the main water body.

CONCLUSIONS

These records add an important and valuable contribution to the Italian and European odonatology and especially to the study of *B. pratense* distribution and ecology.

Pantano Cuba is the first sicilian site for this species and the southernmost of Italy and Europe; it also highlights the undoubted importance of research projects and monitoring of high conservation value areas such as the Pantano Cuba, often underestimated and not subject to the strict retention policies and management of biodiversity which they would deserve.

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