

METALEPTEA

THE NEWSLETTER OF THE



ORTHOPTERISTS' SOCIETY

President's Message

By DAVID HUNTER
President
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Dear Society members, Like almost everyone, we have had to endure severe limits on activities because of the COVID-19 coronavirus.

Many of you have had to work from home, which works for some, but not for others and many have not been able to work at all. Let's hope things start to return to "normal," so we can get on with what we really enjoy doing, though what the "new normal" will be like is far from certain. This issue of *Metalephea* has examples of what we have all had to do during the limitations and lockdowns of various kinds. In my case, I have found time to catch up on the list of jobs around the house and yard that Denise generously updates for me at regular intervals—including washing the windows of all the dust and smoke left from the fires here in Australia earlier this year—under close supervision of our miniature Schnauzer, Ruby, of course!

It is with great pleasure that I announce that Tony Robillard from the National Museum of Natural History in Paris has agreed to be our new Managing

Editor for the *Journal of Orthoptera Research*. Special thanks to our current Managing Editor Corey Bazzel, whose tireless efforts over the past five years has led to increasing accessibility of our journal being open access as part of Pensoft. Meet Tony on page 2!

As you can see from our Treasurer's Report, the economic uncertainties have led to a decline in our investments, but we have had substantial gains during the past 4 years, so we still have more than we had at the end of 2014, the year of the late Ted Cohn's generous gifts to our society. Over the past five years, we have been

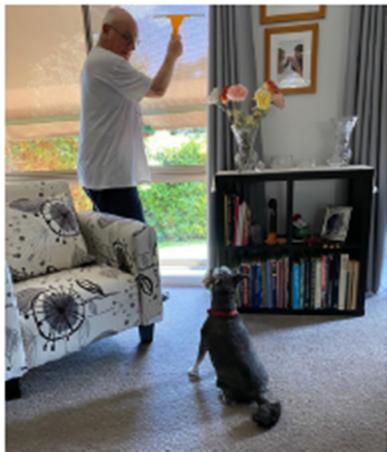


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Orthoptera Conservation in the Middle East: Is *Psorodonotus eberni* priceless or worthless?

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Anatolia is a glacial refugium of the Middle East, a part of the West Palearctic and is considered a biodiversity hotspot because of a high number of endemic species, mainly restricted to the high mountain chains. The rate/number of endemic species shows a gradual tendency, the highest existing at southern or Mediterranean Taurus. However, such species/populations, the glacial relicts, occurring along Mediterranean Taurus, are very vulnerable to current global warming because of their changing habitats and low adaptive potential of small populations. The present study aimed to conduct a case study on the conservation of glacial relicts of Mediterranean relicts. To achieve this aim we chose the iconic bushcricket species *Psorodonotus eberni*, which was considered as one of 100 amazing species by IUCN in the book entitled *Priceless or Worthless: 100 Amazing Species*. The Beydağları bush cricket *P. eberni* is a species restricted to a very narrow area in the Beydağları Mtn, Antalya, Turkey. This grasshopper has been recorded from two neighbouring localities on this mountain range, one from 1500 m (Tahtalıdağ) and the second from 1800 m (Calbalıdağ, İmeciik Yayla). The low altitude population on Tahtalıdağ has already gone extinct and the species remains only at the high altitude in İmeciik Yayla's wetland meadows. The main objectives of the project are: (i) determining the range extent and population size, (ii) studying the characteristics of habitat, (iii) estimating the species' adaptive



Figure 1. Photos from field studies. A. Male *Psorodonotus eberni*; B. Range area of the species (*P. eberni* does not occur in the area in front site of the photo); C. The members of the research team are in an exact occurrence patch of the species (left to right: Özgül Yahyaoğlu, Onur Uluar, and Battal Çiplak); D. Local briefings to people living in İmeciik Yayla.

potential, (iv) estimating effective measures for conservation, and (v) disseminating the outcomes via meetings and booklets. This project is supported by "The Mohamed bin Zayed Species Conservation Fund" (<https://www.speciesconservation.org/>)

Studies conducted during the first period

During the first period of the study, the study area has been visited 6 times (Fig. 1). During these visits, we determined that first hatching observed around the first week of May, and first adults around the first week of June until their disappearance at around the end of June. In the possible occurrence area, the bush crickets were observed at five different patches,

both by observing direct specimens or hearing the male calling song. The total occurrence area constitutes approximately 2.5 km² (see Fig. 1). Although the habitats surrounding these patches seemed promising for the species, we were unsuccessful in locating any in those areas. In a coming year these areas will be especially studied to confirm the exact occurrence area.

To determine population size we also applied a standard sampling method (collecting or recording the occurrence) at three different sites in an area of 200 m x 200 m during the period that adults were observed. We observed 6 males and 1 female in the first site, 15 males and 10 females in the second, and none in the third. By generalizing the sample numbers to