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NOTE

First records of the praying mantis *Empusa fasciata* Brulle, 1832 (Mantodea: Empusidae) from the Republic of Kosovo with notes on other putative Mantodea species previously erroneously recorded

Primeros registros de la mantis religiosa *Empusa fasciata* Brulle, 1832 (Mantodea: Empusidae) de la República de Kosovo con notas sobre otras supuestas especies de Mantodea previamente registradas erróneamente

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Abstract

Empusa fasciata Brulle, 1832 is reported from the Republic of Kosovo for the first time, based on specimens from multiple localities. This work fills an important zoogeographical gap, as this otherwise widespread species was hitherto formally unknown for Kosovo. Historical records of other mantids are discussed, and the formal list now consists of two species.

Keywords: Balkans, faunistic, mantis.

Resumen

Se reporta *Empusa fasciata* Brulle, 1832 en la República de Kosovo por primera vez, basándose en especímenes de múltiples localidades. Este

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trabajo llena un importante vacío zoogeográfico, ya que esta especie, por lo demás ampliamente distribuida, era hasta entonces desconocida formalmente en Kosovo. Se analizan los registros históricos de otras mantis, y la lista oficial ahora consta de dos especies.

Palabras clave: Balcanes, fauna, mantis.

There is little knowledge of the Mantidoea in the Republic of Kosovo. Us & Matvejev (1967) recorded the very widespread species *Mantis religiosa* (Linnaeus, 1758) and it remains common in the country in the present day (pers. obs.). Heller & Bohn (2011) listed, in a now defunct webpage, *Ameles decolor* (Charpentier, 1825) from the former Yugoslavia, including the Republic of Kosovo as part of its distribution, however, we cannot accept this blanket record, which was accepted by Kment (2012), as no evidence of specimens appears to be presented, and the most recent IUCN analysis of this species does now show any distribution records in the Republic of Kosovo (Battiston, 2020). Furthermore, the Republic of Kosovo was not identified as part of the distribution of this species by Agabiti, Ippolito and Lombardo (2010). We thus hereby expunge *A. decolor* from the list of praying mantises recorded from the Republic of Kosovo. Finally, *Iris oratoria* (Linnaeus, 1758) has been spuriously reported from the Republic of Kosovo by Heller & Bohn, but, much like *A. decolor*, no evidence suggests its presence (Vujić and Zlatić, 2021) and we must this also expunge this species from the country list. Thus, the only verified species in the Republic of Kosovo is currently *M. religiosa*.

In this work, we report the second verifiable species for the Republic of Kosovo, based on a collection of a female voucher specimen, and four further records made photographically. Fieldwork, focused on other invertebrate species, was conducted at the locality indicated in the material examined; photographs of the voucher were made by DS using an Olympus TG6 digital camera. Photographic records by coauthors MM and JP, and two further photographic record submitted to us by other colleagues, were also included. Repository of material examined: UP = University of Prishtina, Pristinë, Republic of Kosovo.

One specimen of *Empusa fasciata* Brulle, 1832 from Kërvenik (42.11662287, 21.23360888; full data: 1♀ (UP IN00001), Kërvenik, Kosovo, near forest in bushes, 14/06/2025, leg. D. Geci, D. Sherwood, and E. Kabashi) was collected and pinned (Fig. 1A–H); it is deposited in the zoological collections of the University of Prishtina, Pristinë, Republic of Kosovo (UP).

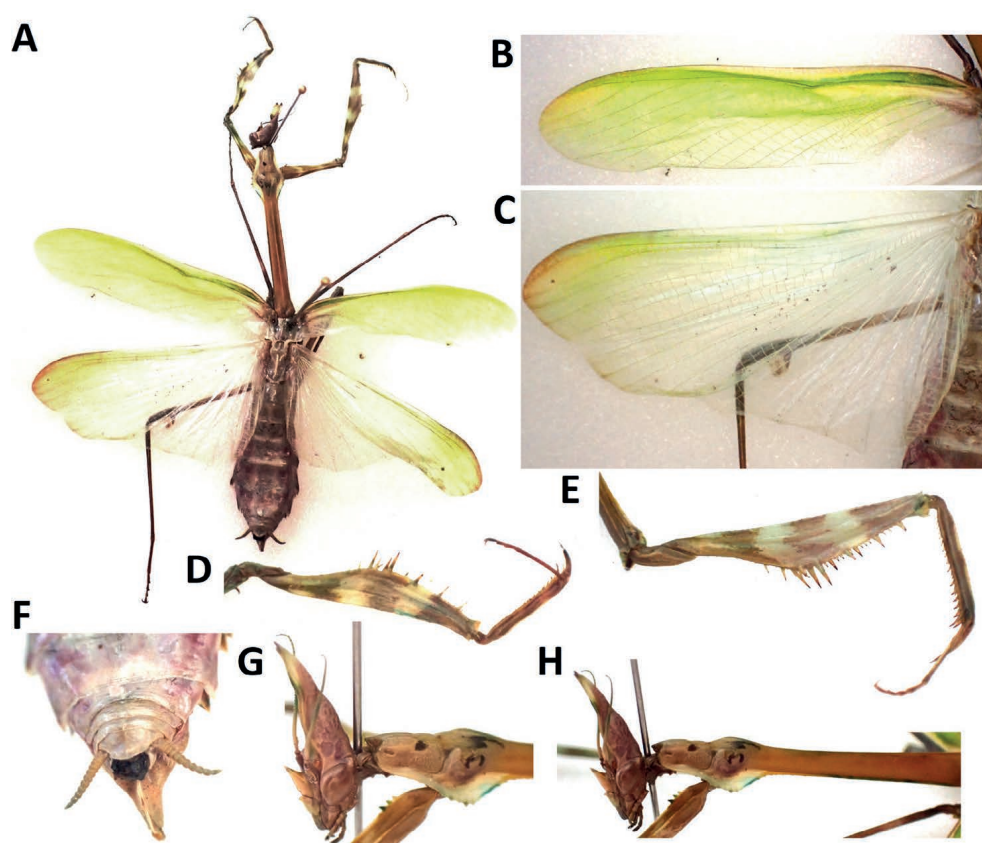


Fig. 1. *Empusa fasciata* Brulle, 1832 female from Kërvenik (UP IN00001), A habitus, dorsal, B close-up of upper wing, dorsal view, C close-up of lower wing, dorsal view, D close-up of leg I (left-hand side), E close-up of leg I (right-hand side), F close-up of apex of abdomen, G close-up of head, H close-up of thorax.

Fig. 1. *Empusa fasciata* Brulle, hembra de 1832 de Kërvenik (UP IN00001), A hábito, dorsal, B primer plano del ala superior, vista dorsal, C primer plano del ala inferior, vista dorsal, D primer plano de la pata I (lado izquierdo), E primer plano de la pata I (lado derecho), F primer plano del ápice del abdomen, G primer plano de la cabeza, H primer plano del tórax.

In addition to the preserved female, we have photographic records from Volijak (42.538387, 20.587754) on 20/06/2021 by MM (Figs. 2A–B, 3), Kosine Ferizaj (42.4139126, 21.12979564) from 12/06/2025 by Behar Krasniqi (Figs. 2C, 3), and a nymph from Pashtrik (42.44, 20.62) by Naim Berisha (Figs. 2D, 3), and one further record from Kërvenik on 15/05/2021 by JP (Figs. 2E, 3).

The addition of a second verifiable mantid for the Republic of Kosovo is significant and underpins the paucity of data on terrestrial invertebrates in the country. It is likely other species of mantid occur in the Republic of Kosovo, with the presence of *Hierodula tenuidentata* Saussure, 1869 being predicted by László et al. (2023), although specimens need to be documented before it can be added formally to the list.

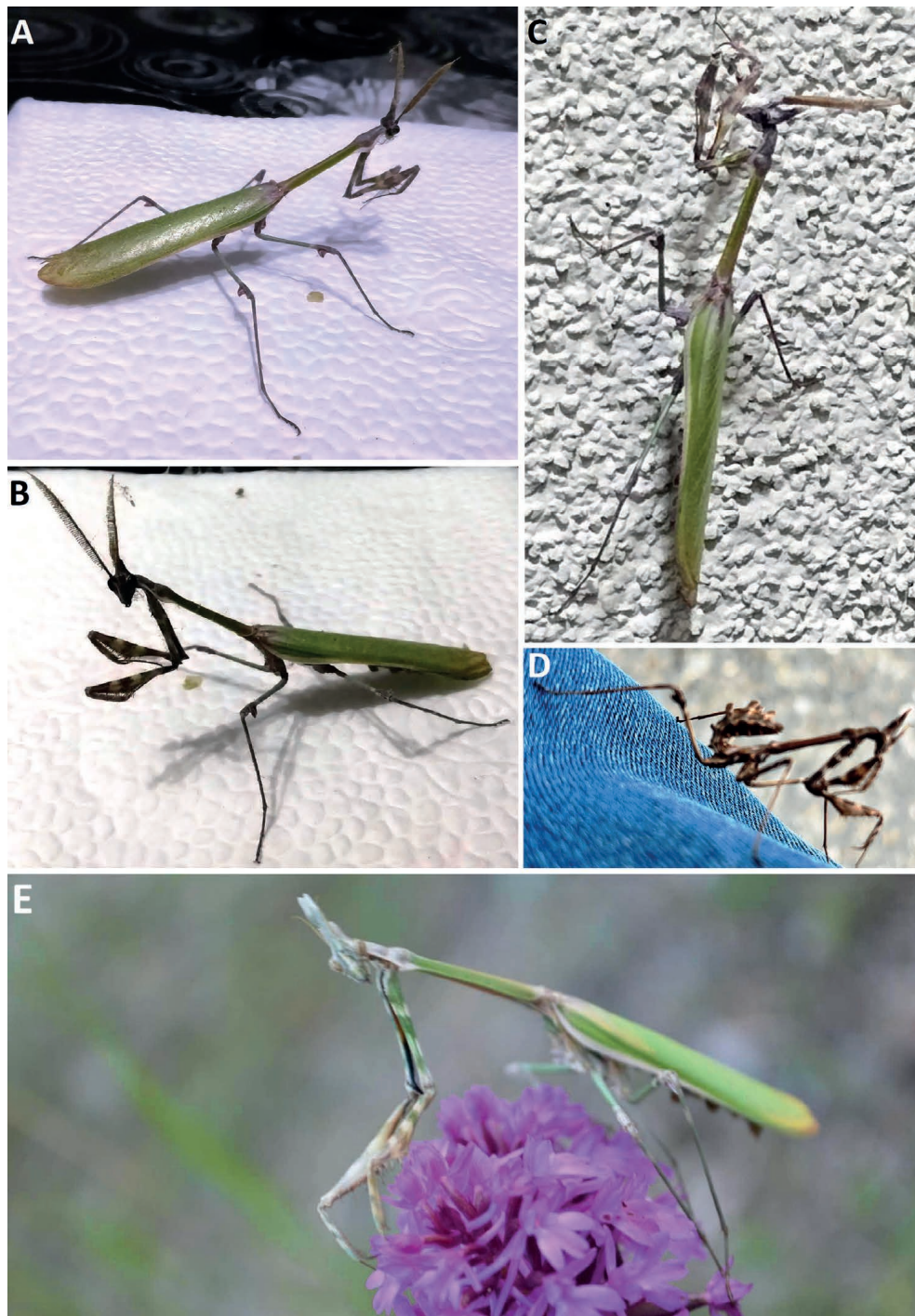


Fig. 2. *Empusa fasciata* Brulle, 1832 photographic records, A–B from Volijak, C from Kosine Ferizaj (courtesy of Behar Krasniqi), D from Pashtrik (courtesy of Naim Berisha), E from Kërvenik.

Fig 2. *Empusa fasciata* Brulle, registros fotográficos de 1832, A–B de Volijak, C de Kosine Ferizaj (cortesía de Behar Krasniqi), D de Pashtrik (cortesía de Naim Berisha), E de Kërvenik.

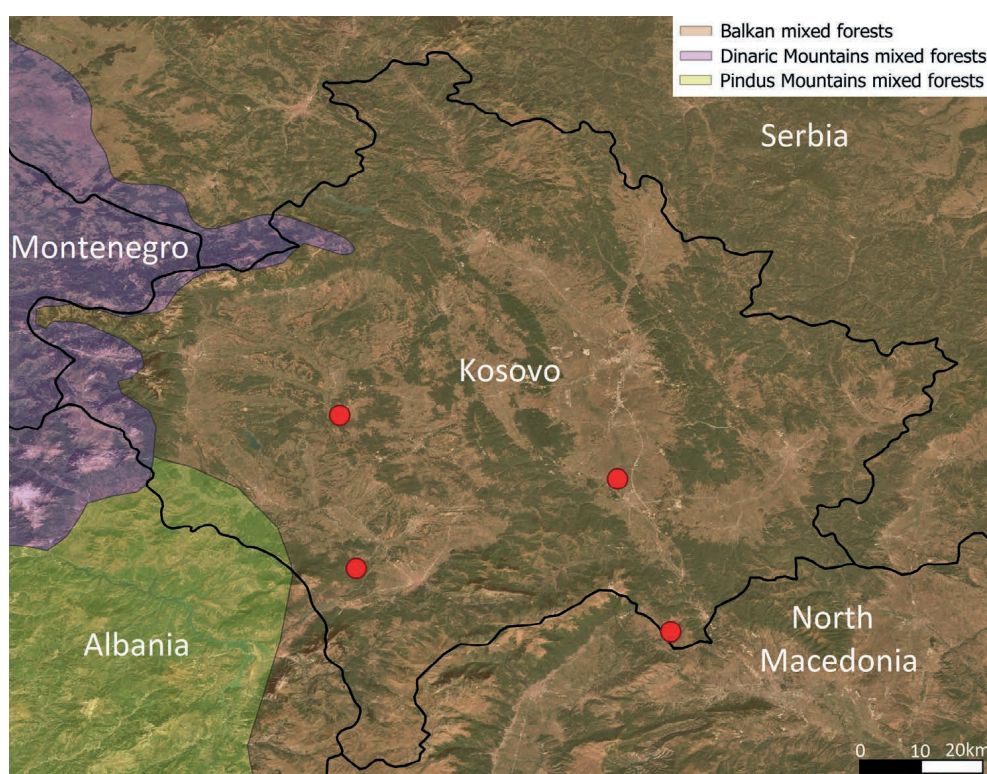


Fig. 3. Map showing distribution of *Empusa fasciata* Brulle, 1832 in the Republic of Kosovo, overlain with ecoregions *sensu* Dinerstein *et al.* (2017), map made using QGIS v. 3.34.6 Prizren.

Fig. 3. Mapa que muestra la distribución de *Empusa fasciata* Brulle, 1832 en la República de Kosovo, superpuesto con ecorregiones *sensu* Dinerstein *et al.* (2017), mapa elaborado con QGIS v. 3.34.6 Prizren.

We add a new species of mantid to fauna of the Republic of Kosovo, and expunge two species previously reported based on overreaching assessment of the locality ‘Yugoslavia’ used by previous workers. We also emphasise that the mantids of the country are understudied, and further species may be discovered through targeted future fieldwork and/or gathering of citizen science data. Nonetheless, the present work represents the first peer-reviewed publication on mantids of the Republic of Kosovo in the 21st Century, and it is hoped it will spur future contributions.

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REFERENCES

- Agabiti, B., Ippolito, S., Lombardo, F. (2010). The mediterranean species of the genus *Ameles* Burmeister, 1838 (Insecta, Mantodea: Amelinae), with a biogeographic and phylogenetic evaluation. *Boletín de la Sociedad Entomológica Aragonesa*, 47, 1–20.
- Battiston, R. (2020). Last Modified 2020. *Ameles decolor*. The IUCN Red List of Threatened Species 2020: e.T44791345A44798428. Available online: <https://dx.doi.org/10.2305/IUCN.UK.2020-2.RLTS.T44791345A44798428.en> (accessed on 17 June 2025).
- Dinerstein, E., Olson, D., Joshi, A., Vynne, C., Burgess, N. D., Wikramanayake, E., Hahn, N., Palminteri, S., Hedao, P., Noss, R., Hansen, M., Locke, H., Ellis, E. C., Jones, B., Barber, C. V., Hayes, R., Kormos, C., Martin, V., Crist, E., Sechrest, W., Price, L., Baillie, J. E. M., Weeden, D., Suckling, K., Davis, C., Sizer, N., Moore, R., Thau, D., Birch, T., Potapov, P., Turubanova, S., Tyukavina, A., De Souza, N., Pintea, L., Brito, J. C., Llewellyn, O. A., Miller, A.G., Patzelt, A., Ghazanfar, S. A., Timberlake, J., Klöser, H., Shennan-Farpón, Y., Kindt, R., Lillesø, J. B., Van Breugel, P., Graudal, L., Voge, M., Al-Shammari, K. F., Saleem, M. (2017). An ecoregion-based approach to protecting half the terrestrial realm. *Bioscience*, 67, 534–545.
- Heller K.-G., Bohn H. (2011): Mantodea. Fauna Europaea. Last Modified 2015. Formerly available online: www.faunaeur.org/full_results.php?id=11918 [link defunct, wayback machine archive still available at: https://web.archive.org/web/20140521195011/www.faunaeur.org/full_results.php?id=11918]
- Kment, P. (2012). First exact records of Mediterranean Mantis, *Iris oratoria* (Dictyoptera: Mantodea: Tarachodidae) from Croatia. *The Journal of Silesian Museum in Opava (A)*, 61, 43–48.
- László, M., Katona, G. P., Péntek, A. L., Nagy, A. V. (2023). Spread of the invasive Giant Asian Mantis *Hierodula tenuidentata* Saussure, 1869 (Mantodea: Mantidae) in Europe with new Hungarian data. *Bonn Zoological Bulletin*, 72(1), 133–144.
- Us P., Matvejev S. (1967). *Catalogus Faunae Jugoslaviae*. III/6. Orthopteroidea. 43 pp, Consilium Academicarum Scientiarum Rei Publicae Socialisticae Foederative Jugoslaviae, Academia Scientiarum et Artium Slovenica, Ljubljana.
- Vujić, M., Zlatić, L. (2021). The first confirmed record of Mediterranean mantis, *Iris oratoria* (Mantodea: Eremiaphilidae) in Montenegro. *Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa"*, 64(2), 97–101.