

to the OSF database:

- |                                      |                                      |                                   |
|--------------------------------------|--------------------------------------|-----------------------------------|
| • <i>Neorhaphidophora valentinae</i> | • <i>Neorhaphidophora valentinae</i> | • <i>Rhaphidophora dehaani</i>    |
| • <i>Neorhaphidophora proxima</i>    | • <i>Stonychophora cultrifera</i>    | • <i>Rhaphidophora loricata</i>   |
| • <i>Neorhaphidophora steineri</i>   | • <i>Stonychophora cultrifer</i>     | • <i>Rhaphidophora dammermani</i> |
|                                      | • <i>Stonychophora fulva</i>         |                                   |

## Contribution of distributional and taxonomical data of Mantodea species and photos of live individuals from West Central Africa

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**T**he number of Mantodea species in the world is nearly 2,500 valid species (Wieland & Svenson 2018). This remains a small order of insects next to the Hymenoptera, Coleoptera, Lepidoptera, etc. The knowledge about Mantodea that we have is growing day by day. For several years, a craze has grown, which has led to many publications that review the Mantodea taxonomy, from subgenus all the way to the order level.

Mantodea Species File (MSF) (Otte et al. 2019), developed from the publication of R. Ehrmann (2002) and that of D. Otte & L. Spearman (2005), established the online foundations for Mantodea. These two last authors, assisted by Martin B.D. Stiewe (editor) and David C. Eades (Database Developer), have done a remarkable job. Almost all the citations known during the creation of MSF are recorded. Today, a very large amount of data are missing concerning each of the recorded species: description of the types, their location, their distribution. Thanks to the regular work of Martin B.D. Stiewe, in recent publications, species are recorded in detail in MSF. The updates to be made are on the data recorded from the beginning.

Since 2010, I have participated in many scientific missions in Central Africa (Cameroon, Central African Republic, Gabon). These different missions allowed me to photograph many species in their natural environment. They also allowed me to meet colleagues who could bring me their

contributions in photographs. As a Mantodea specialist for decades, I have also accumulated almost all the bibliography concerning these insects. Finally, as a volunteer of the Mantodea collection at the Muséum national d'Histoire naturelle (MNHN) in Paris, I have access to the data of one of the largest collections of the world of this order of insects; in particular, data on Mantodea from West and Central Africa. Indeed, France has set up scientific research stations in the Congo Basin. The French presence brought a lot of data to the MNHN. Roger Roy, my mentor, is no stranger to all this data accumulated at the MNHN. The Mantodea types preserved in Paris were digitized for four years and are viewable at <https://science.mnhn.fr>. Many types are also digitized on <https://mantodearesearch.com/images/>, one of G. Svenson's Mantodea projects, along with his collaborators.

Thus, thanks to the support of Orthopterists' Society, I contributed to the knowledge of the Mantodea of Central Africa. A list of 137 species, whose data have been updated, is based on several major publications that record these insects in Congo Basin countries (Roy 1968, Moulin et al. 2017, Moulin 2018, Roy 2018). The



**Figure 1.** *Pseudocreobotra ocellata* female adult at the top of Mt Brazza, Lope NP, Gabon, III-2013.

locality of the types has been indicated. The species distribution has been updated. The place of conservation of the types was recorded, as well as the kind of type studied and the category of the specimen. A link to the photos of types produced by the MNHN has been added (46 species conserved at MNHN). 71 photos taken by myself, in natura, were added (Figs. 1 and 2) as well as 29 photos from several authors whom I thank here: Thibaud Decaëns, Guilhem Duvot, Serge Obounou Menie, and Nil Rahola. Recent citations have also been added. Nominative descriptions of many species have been considered; thus, names of authors and dates have been able to find parentheses as the international nomenclature requires.

Work on Mantodea continues. I collaborate regularly with Martin B.D. Stiewe in order to improve MSF as soon as the opportunity arises during a work of taxonomy or synthesis of knowledge. I hope that the work done

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**Taxa hierarchy** [Change items displayed](#)


**Species File**

- subfamily [Oxyphilinae](#)
- tribe [Oxyphilini](#)
- genus [Junodia](#) Schulthess-Rechberg, 1899

**species *Junodia lameyi* Beier, 1942**

**LSID** urn:lsid:Mantodea.speciesfile.org:TaxonName:2853

Images:




specimen

Links:

- [MNHN - insects - Small Orders](#)

Distribution:



Ecology:

- Terrestrial.

Specimen records are available.

Citations (7):

- Beier. 1942. Annln naturh. Mus. Wien 52:150
- Roy. 1972. Bull. Inst. fond. Afr. noire A 34(3):579
- Roy. 1978. Bull. Inst. fond. Afr. noire 39:97
- Ehrmann. 2002. Mantodea der Welt 197
- Moulin, Decaëns & Annoyer. 2017. JOR 26(2):129 >> Note: In CAR >> *Junodia lameyi*
- Moulin. 2018. Les cahiers de la fondation Biotope 24:15 >> Note: In Gabon >> *Junodia lameyi*
- Roy. 2018. Bulletin de la Société entomologique de France 123(3):354 >> Note: in CAR >> *Junodia lameyi*

Type specimen information:

- Type locality: Africa, West-Central Tropical Africa, Cameroon, Kribi
- Kind of type: holotype
- Specimen category: Female
- Location of type: Warzawa

synonym [olseni](#) Roy, 1965

Figure 2. Example of a species updated on MSF.

can be useful. The Mantodea taxonomy has undergone major changes recently (Schwarz & Roy 2019) and there is still some work necessary for updating MSF.

I would like to thank the Orthopterists' Society for supporting my project, Maria Marta Cigliano for giving me extra time, Philippe Grandcolas for access to the Mantodea collections of MNHN, and Roger Roy for all the knowledge he gives me each day.

#### References

- Ehrmann, R. 2002. Mantodea, Gottesanbeterinnen der Welt. Natur und Tier Verlag GmbH. Münster, 519 p.
- Moulin, N., T. Decaëns & P. Annoyer. 2017. Diversity of mantids (Dictyoptera: Mantodea) of Sangha-Mbaere Region, Central African Republic, with some ecological data and DNA barcoding. Journal of Orthoptera Research, 26 (2): 117-141.
- Moulin, N. 2018. Liste commentée et catalogue illustré des Mantodea du Gabon. Les cahiers de la Fondation Biotope, 24 : 2-60.
- Otte, D. & L. Spearman. 2005. Mantida species file. Catalog of the mantids of the world. Insect Diversity Association, Publication Number 1. Philadelphia. 489 p.
- Otte, D., L. Spearman & M. B.D. Stiewe. Mantodea Species File Online. Version 5.0/5.0. [July 1st, 2019]. <http://Mantodea.SpeciesFile.org>
- Roy, R. 1968. Contribution à la faune du Congo (Brazzaville). Mission A. Villiers et A. Descarpentries. LXVIII. Dictyoptères Mantodea. Bulletin de l'Institut Français d'Afrique Noire, Tome 30, Série A, n°1 : 318-339.
- Roy, R. 2018. Bilan des récoltes de Mantodea réalisées dans le secteur de La Maboké (République Centrafricaine). Bulletin de la Société entomologique de France, 123 (3) : 343-364.
- Schwarz, C. & R. Roy. 2019. The systematics of Mantodea revisited: an updated classification incorporating multiple data sources (Insecta: Dictyoptera). Annales de la Société entomologique de France, 55 (2) : 101-196.
- Wieland, F. & G.J. Svenson. 2018. Biodiversity of Mantodea. In: Footitt, R.G. & Adler, P.H. (Eds), Insect Biodiversity: Science and Society, Volume II. John Wiley & Sons, New Jersey, pp. 389-416.