



# Social Wasp Fauna in the Brazilian Amazon: Challenges and Perspectives

## Somavilla A\*

National Institute of Amazonian Research, Amazonas, Brazil

**\*Corresponding author:** Alexandre Somavilla, Instituto Nacional de Pesquisas da Amazônia, Coordenação de Biodiversidade, Av. André Araújo, 2936, CEP: 69067-375, Manaus, Amazonas, Brasil, Tel: (92) 36433359; Email: alexandresomavilla@gmail.com

### Editorial

Volume 4 Issue 1

Received Date: January 30, 2021

Published Date: February 08, 2021

DOI: 10.23880/izab-16000274

## Editorial

The Amazon Rainforest is the biggest biome within Brazilian territory, covering an area of 4,196,943 Km<sup>2</sup>. However, many areas lack the most basic studies on biodiversity, particularly in the case of invertebrates. In order to develop any effective conservation proposal, it is first necessary to acquire knowledge about the species that occur in a particular area. Thus, the Brazilian Amazon forest has one of the greatest biodiversity's in the world, including the greatest diversity of social wasps (Vespidae), with Polistinae being the most diverse group among social wasps, with more than 1,000 species described. These wasps play an important role and are important components for complex interactions with other organisms in Neotropical ecosystems.

However, most of the research work was conducted as qualitative inventories of museums, with no particular concern for the collection effort or area explored. Ducke, et al. [1,2] conducted one of the first surveys of wasp fauna in the eastern region of the Brazilian Amazon, mainly in the Pará State. More recently, similar works have been carried out in the Brazilian Amazon, such as in Acre State [3-5], Amapá State [6,7], Amazonas State [6-12], Maranhão State [13], Pará State [14,15], Rondônia State [16], and Roraima State [16,17].

In the Amazon, where social wasps are very diverse, the potential for planned field research seems particularly important. However, there are still many practical impediments, from difficult access to a lack of financial support, so that the vast territory cannot be reasonably covered. Despite the great importance of data from museum collections, planned field inventories are very necessary for the study of various aspects of the diversity of social wasps in the Amazon. Large collection gaps exist in the so-called Amazonian interfluves for which data on social wasps are

not available. A great effort must be made to reduce these gaps, as well as to improve the knowledge about the social wasps of the Amazon.

## References

1. Ducke A (1904) Sobre as Vespidas sociaes do Pará. Boletim do Museu Paraense Emílio Goeldi de História Natural. 4: 317-374.
2. Ducke A (1907) Novas contribuições para o conhecimento das Vespas (Vespidae sociaes) da Região Neotropical. Boletim do Museu Paraense Emílio Goeldi de História Natural. 5: 152-199.
3. Morato EF, Amarante ST, Silveira OT (2008) Avaliação ecológica rápida da fauna de vespas (Hymenoptera, Aculeata) do Parque Nacional da Serra do Divisor, Acre, Brasil. Acta Amazonica 38: 789-798.
4. Gomes B, Knidel SVL, Moraes HS, Silva M (2018) Survey of social wasps (Hymenoptera, Vespidae, Polistinae) in Amazon rainforest fragments in Acre, Brazil. Acta Amazonica 48: 109-116.
5. Somavilla A, Morais RNM, Oliveira ML, Rafael JR (2020) Biodiversity of Insects in the Amazon: survey of social wasps (Vespidae: Polistinae) in Amazon rainforest areas in Amazonas state, Brazil. Sociobiology, 67: 312-321.
6. Silveira OT, Costa Neto SV, Silveira OFM (2008) Social wasps of two wetland ecosystems in Brazilian Amazonia (Hymenoptera, Vespidae, Polistinae). Acta Amazonica 38: 333-344.
7. Silveira OT, Furtado NVR, Gama JMF, Felizardo SPS,

- Santos IPV (2019) Update to the knowledge of the social wasps of the Brazilian state of Amapá based on the vespidae collection of the Amapá Research Institute (IEPA) (Hymenoptera, Vespidae, Polistinae). *Zootaxa* 4563: 267-296.
8. Somavilla A, Oliveira ML & Silveira OT (2014) Diversity and aspects of the ecology of social wasps (Vespidae, Polistinae) in Central Amazonian 'terra firme' forest. *Revista Brasileira de Entomologia* 58: 349-355.
  9. Somavilla A, Andena SR, Oliveira ML (2015) Social Wasps (Hymenoptera: Vespidae: Polistinae) of the Jaú National Park, Amazonas, Brazil. *EntomoBrasilis* 8: 45-50.
  10. Somavilla A, Schoeninger K, Castro DGD, Oliveira ML, Krug C (2016) Diversity of wasps (Hymenoptera: Vespidae) in conventional and organic guarana (*Paullinia cupana* var. *sorbilis*) crops in the Brazilian Amazon. *Sociobiology* 63: 1051-1057.
  11. Somavilla A, Oliveira ML (2017) Social wasps (Vespidae: Polistinae) from Ducke Reserve, Amazonas, Brazil. *Sociobiology* 64: 125-129.
  12. Somavilla A, Morais RNM, Rafael JA (2019) Is the social wasp fauna in the tree canopy different from the understory? Study of a particular area in the Brazilian Amazon Rainforest. *Sociobiology* 66: 179-185.
  13. Somavilla A, Marques DWA, Barbosa EAS, Pinto JS, Oliveira ML (2014b) Vespas Sociais (Vespidae: Polistinae) em uma Área de Floresta Ombrófila Densa Amazônica no Estado do Maranhão, Brasil. *EntomoBrasilis* 7: 183-187.
  14. Silveira OT (2002) Surveying Neotropical Social Wasps. An Evaluation of Methods in the "Ferreira Penna" Research Station (ECFPn), in Caxiuanã, PA, Brazil (Hymenoptera, Vespidae, Polistinae). *Papéis Avulsos de Zoologia* 42: 299-323.
  15. Silva SS, Silveira OT (2009) Vespas sociais (Hymenoptera, Vespidae, Polistinae) de floresta pluvial Amazônica de terra firme em Caxiuanã, Melgaço, Pará Iheringia 99: 317-323.
  16. Gomes B, Lima CS, Silva M, Noll FB (2020) High number of species of Social Wasps (Hymenoptera, Vespidae, Polistinae) corroborates the great biodiversity of Western Amazon: a survey from Rondônia, Brazil. *Sociobiology* 67: 112-120.
  17. Barroso PCS, Somavilla A, Boldrini R (2017) Updating the geographic records of social wasps (Vespidae: Polistinae) in Roraima state. *Sociobiology* 64: 339-346.

