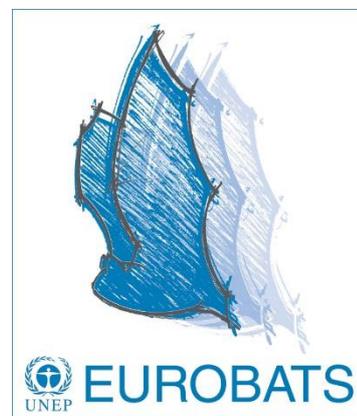


25th Meeting of the Advisory Committee

Videoconference 30 April 2021

Report of the Intersessional Working Group on Monitoring and Indicators



This IWG met online on March 25, 2021.

During the meeting, the IWG members discussed the progress and status of the IWG tasks determined in the last meeting in Skopje, and the upcoming activities of the group. It was also discussed the interaction between the European CostAction project and the work carried out by this intersessional working group. In order to do so, the CostAction project CLIMBATS' main goals and structure were briefly presented to the attendees.

Due to pandemic, the work progress in this IWG has been lower than expected. Nevertheless, the convenors of the IWG have already collected a remarkable amount of questionnaires from several countries with information about suitable techniques for bat monitoring schemes (per species) as well as general information of current monitoring schemes (as agreed in the previous IWG meeting in Skopje).

Due to the provided support by Ivana Budinski and David López-Bosch, the collected data (from the questionnaires) has already been pre-processed and preliminary plots prepared to be further discussed with the rest of the IWG members in the upcoming meetings. We provide here some of them as examples (see the Appendix for more detailed information).

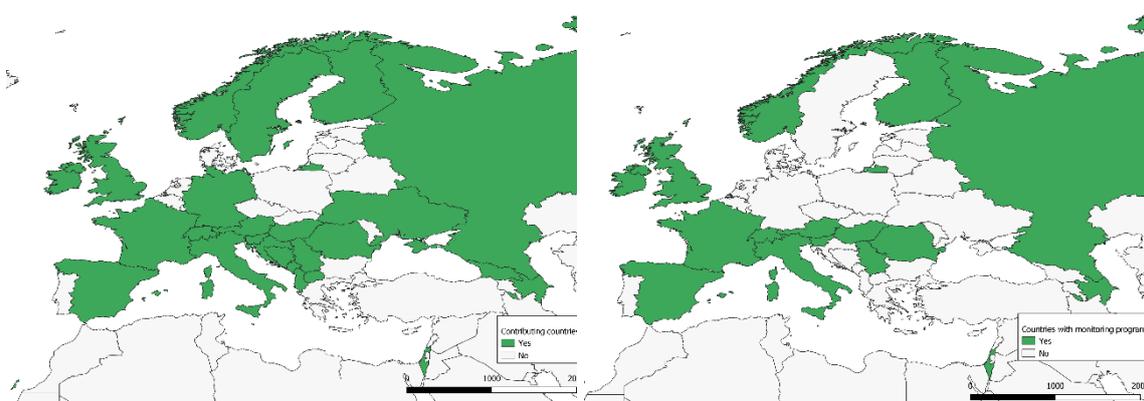


Figure 1. Left: Countries from which we have already collected questionnaires; Right: Countries where some bat monitoring programmes are/were conducted.

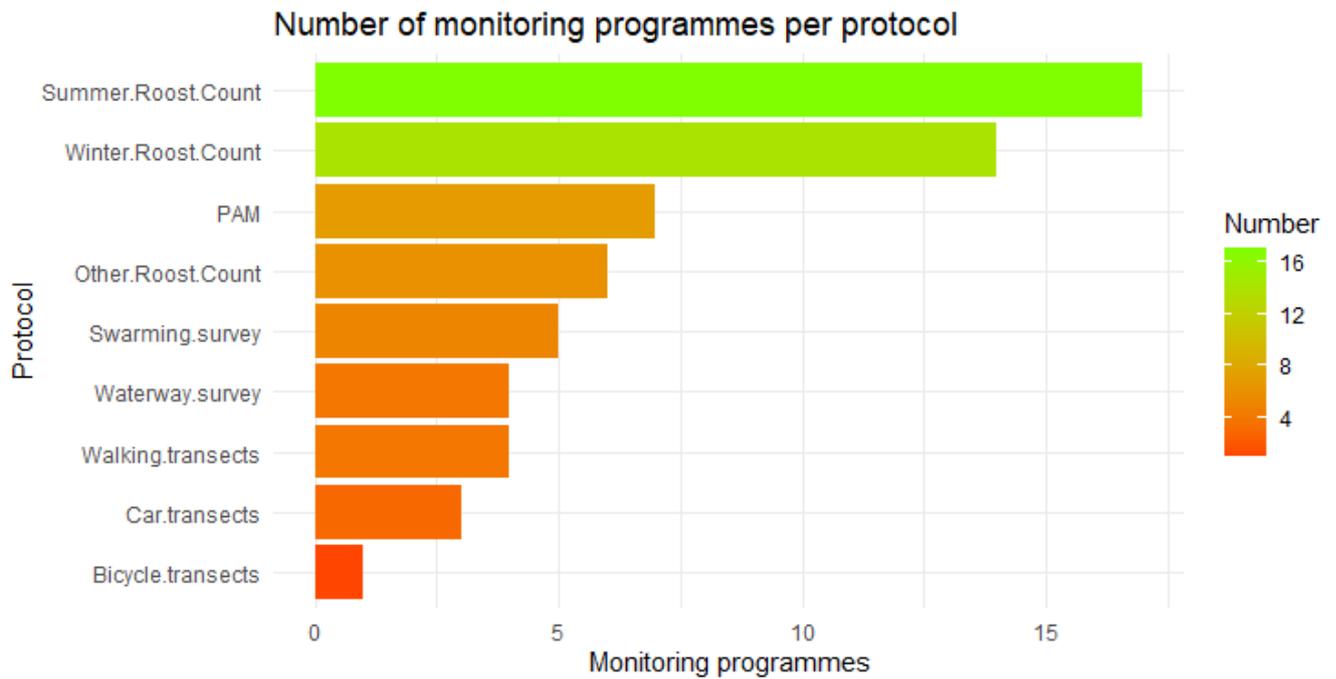


Figure 2. Number of different monitoring programmes that have already been reported in the questionnaires (data might change once the rest of the questionnaires are collected)

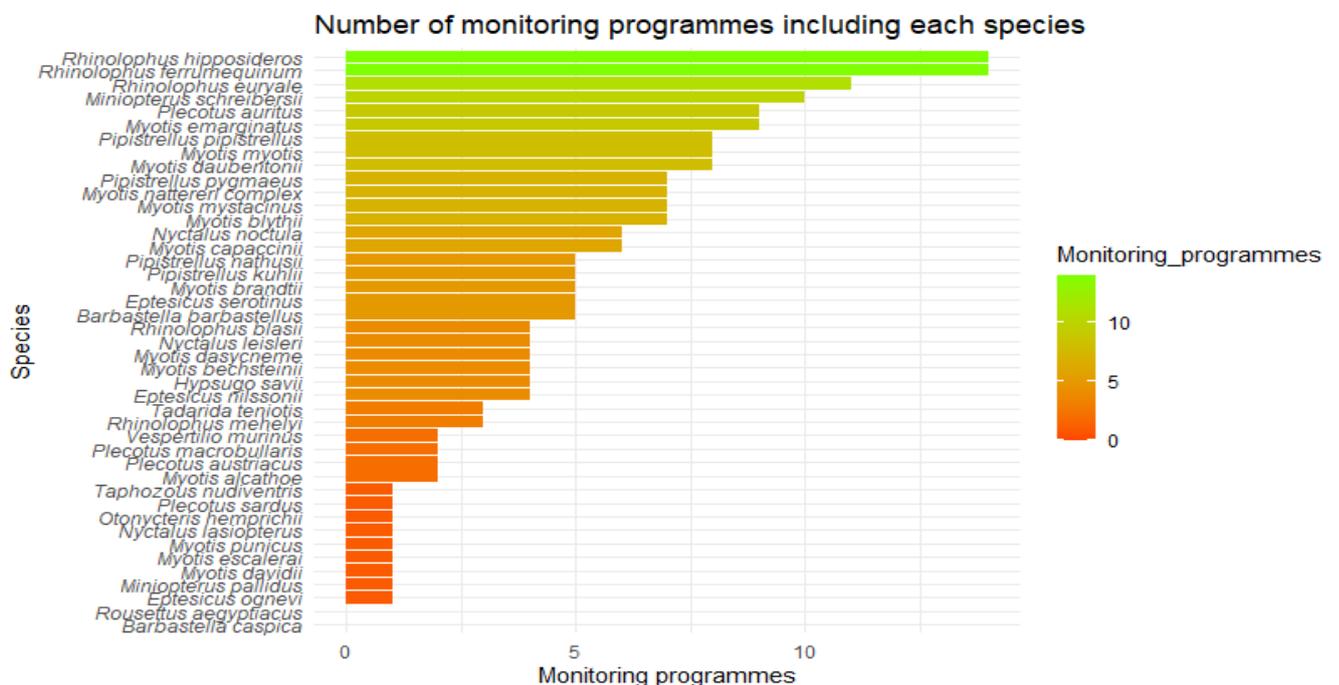


Figure 3. Number of monitoring programmes focused on all the species that are currently being monitored (data might change once the rest of the questionnaires are collected)

For more information about suitable techniques for bat monitoring programmes, please check the Appendix.

Additionally, the membership of the IWG was updated: Adrià López-Baucells (Co-Convenor), Daniela Hamidović (Co-Convenor), Andrzej Kepel, Astghik Ghazaryan, Aurora Dibra, Awatef Abiadh, Branko Micevski, Cecilia Montaubán, Christine Harbusch, David López-Bosch, Dragoş Ştefan Măntoiu, Emrah Çoraman, Ferdia Marnell, Fiona Mathews, Gunārs Pētersons, Helena Jahelková, Herman Limpens, Hubert Krättli, Ivana Budinski, Jacques Pir, Janusz Hejduk, Jasja Dekker, Jasminko Mulaomerović, Jean Matthews, Kit Stoner, Lena Godlevska, Luisa Rodrigues, Marcus Fritze, Marie-Jo Dubourg-Savage, Marie Nedinge, Markus Melber, Mirna Mazija, Orly Razgour, Primož Presetnik, Szilard-Lehel Bücs, Tony Hutson, Vida Zrnčić.

Regarding the updated guidelines for bat monitoring that need to be prepared and presented to MoP9 for approval, during the last meeting the members of the IWG also discussed the best strategy to speed up the work. The Convenors contacted the members that previously agreed to collaborate, and checked/updated the responsible persons for each section. During the last meeting, it was also designed a new timeframe and schedule to get the monitoring guidelines on time for the upcoming MoP9. The main draft of the updated guidelines was circulated amongst the IWG members online. The first phase of this task would be to update chapters 2 and 3, which are focused on the techniques that can be used to monitor bat populations, and the protocols that should be used in different habitats/environments/roosts. A next meeting will take place during mid May with the aim to have Chapters 2 and 3 well-advanced by mid-June.

EUROBATS

Publication Series N° X

Guidelines for Surveillance and Monitoring of European Bats

(version 2022)

1 Foreword

1 Introduction

- 1.1 Surveillance and monitoring of bats across Europe
- 1.2 Developing surveillance and monitoring schemes

2 Surveillance methods

- 2.1 Introduction
- 2.2 Acoustic surveys
 - 2.2.1 Remote Acoustic Stations DAVID LÓPEZ-BOSCH & ADRIÀ LÓPEZ-BAUCELLS
 - 2.2.2 Walked bat detector transects PRIMOŽ PRESETNIK
 - 2.2.3 Car/Bicycle/boat bat detector transects HERMAN LIMPENS
- 2.3 Photography counts DANIELA HAMIDOVIĆ & SZILARD-LEHEL BÜCS
- 2.4 Thermo-imagery STEPHANE AULAGNIER
- 2.5 Infrared recording DANIELA HAMIDOVIĆ
- 2.6 Infrared light barriers MARCUS FRITZE
- 2.7 Visual roost inspection (e.g. hibernacula + maternity roosts) PRIMOŽ PRESETNIK
- 2.8 Optic-fiber camera inspection CECILIA MONTAUBÁN
- 2.9 Marking bats ADRIÀ LÓPEZ-BAUCELLS & MARCUS FRITZE
- 2.10 Trapping bats (mist-netting, harp-trapping, etc.) MARCUS FRITZE
- 2.11 Genetic monitoring ORLY RAZGOUR
- 2.12 Tracking (VHF/GPS) MARIE-JO DUBORG-SAVAGE & MARCUS FRITZE
- 2.13 Bat boxes MARKUS MELBER

3 Long-term monitoring protocols for different habitats

- 3.1 Roost monitoring
 - 3.1.1 Maternity colonies SZILARD-LEHEL BÜCS & DANIELA HAMIDOVIĆ
 - 3.1.2 Hibernation colonies SZILARD-LEHEL BÜCS & DANIELA HAMIDOVIĆ
 - 3.1.3 Migration colonies SZILARD-LEHEL BÜCS & DANIELA HAMIDOVIĆ
- 3.2 Swarming site monitoring MARCUS FRITZE
- 3.3. Summer- and spring- foraging habitats monitoring ADRIÀ LÓPEZ-BAUCELLS

4 Table: technique/habitat/species

5 Data Management, sharing and storage

6 National bat monitoring programmes

7 Species accounts

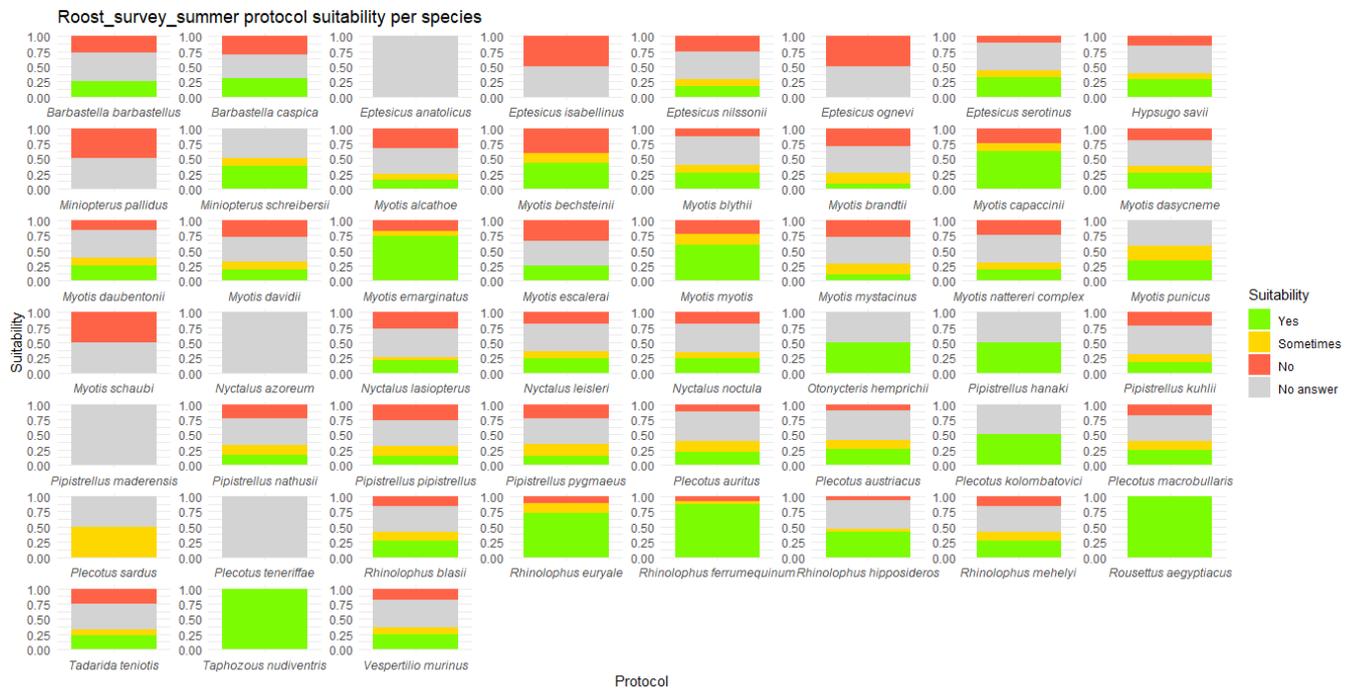
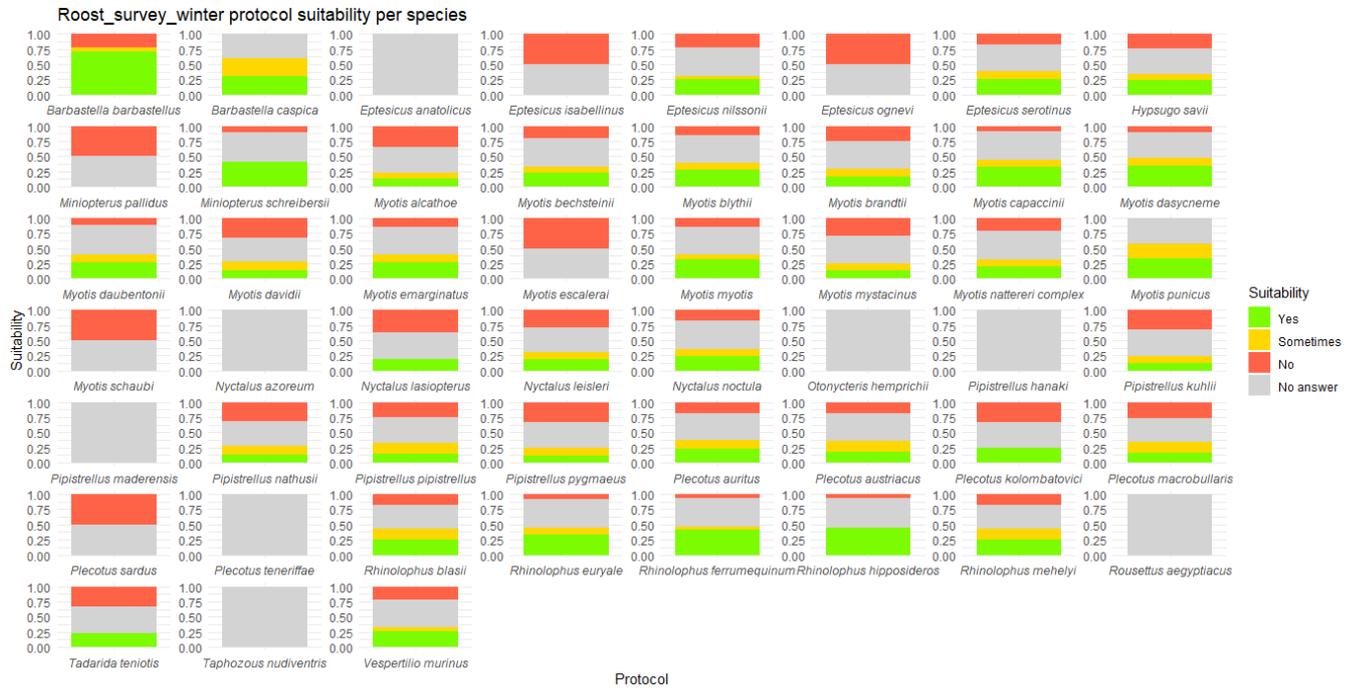
8 Pan-national Indicators

9 References and further reading

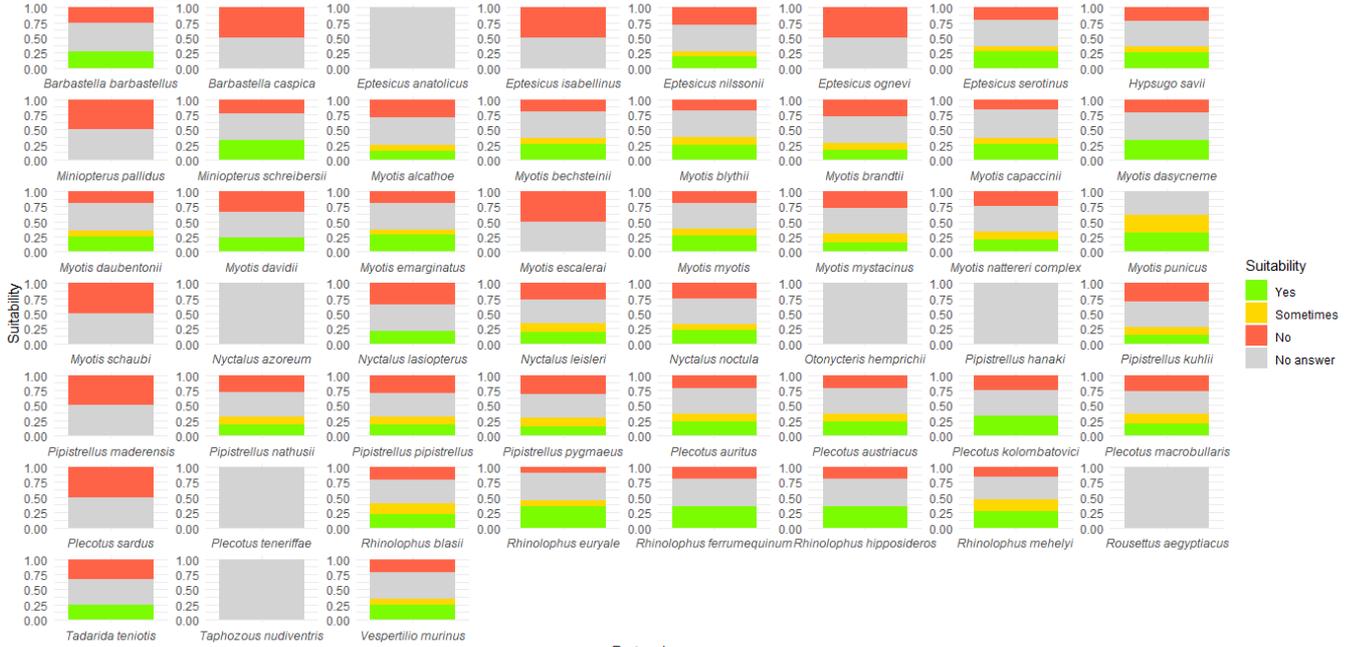
10 List of contributors

Appendix

Proportion of answers regarding the suitability of a series of bat monitoring techniques for each species (results might change once the rest of the data is collected).



Roost_survey_other protocol suitability per species



Protocol

Molecular_analysis protocol suitability per species



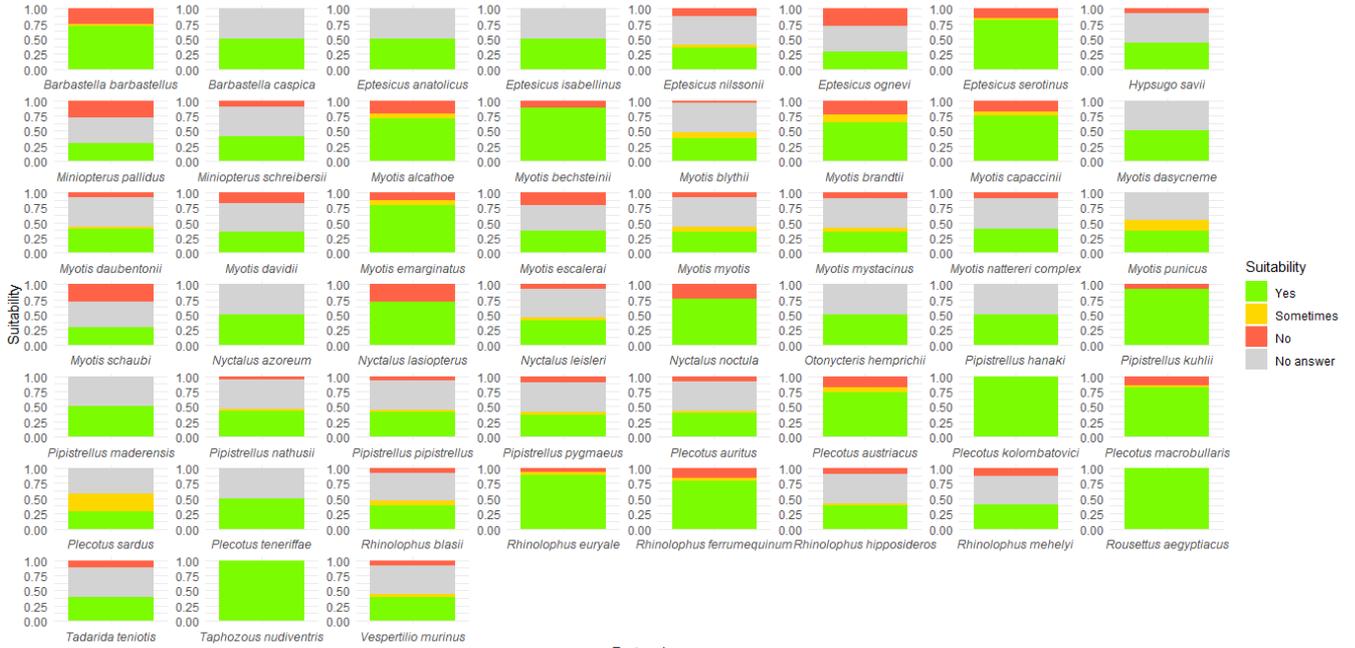
Protocol

Heterodyne protocol suitability per species



Protocol

Handling protocol suitability per species



Protocol

