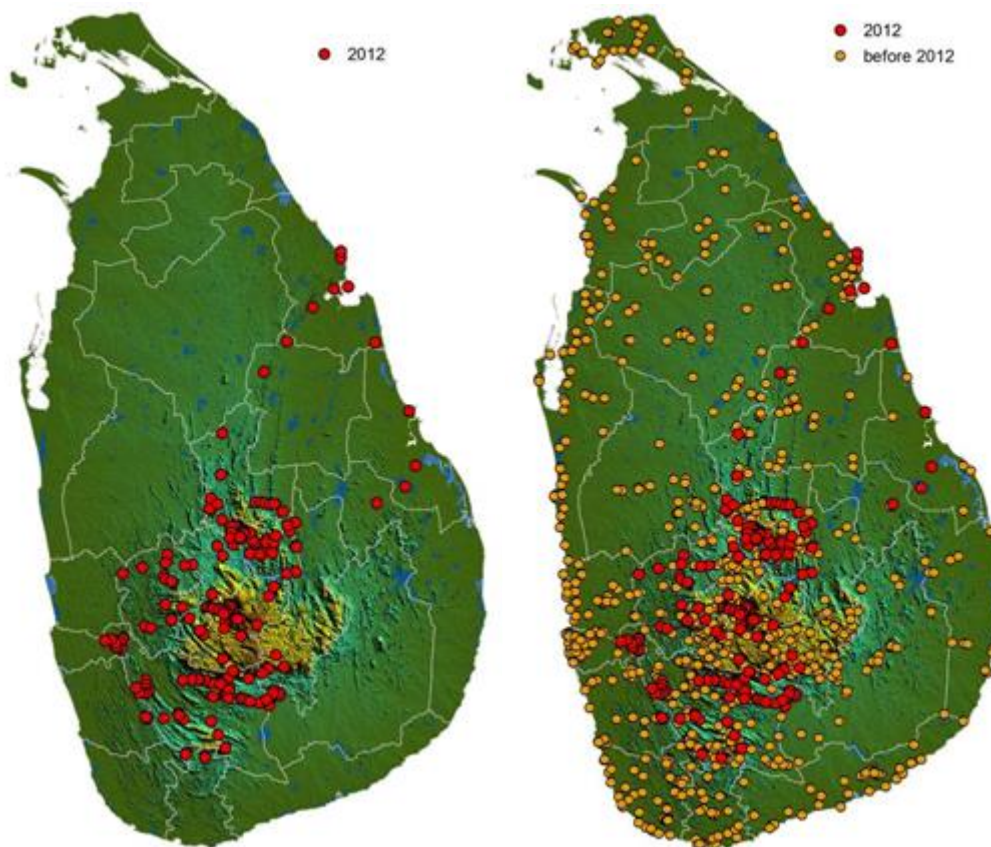


Project Update: December 2012

As second part of the proposed project additional odonatological fieldwork has been conducted in Sri Lanka in October and November 2012. During 16 field days between 26th October and 11th November 2012, almost 100 localities have been surveyed and 57 species have been recorded. After successful first part of odonatological fieldwork in July 2012, again many odonatologically unexplored areas have been visited and many valuable new data on endangered endemic species distribution and biology have been gathered.

For the first time in many visits of the island, also an important lesson has been learned - no matter how good the preparation and organisation, one cannot control the weather, especially not in the tropics. As dragonflies are sun loving insects, very early monsoon weather with a lot of clouds and rain surely had an impact on the results of October and November field work. However, also a suboptimal season and bad weather can have their highlights.



Sri Lanka overview map: in the left figure dragonfly localities surveyed in the frame of Rufford Small Grant project are marked with red dots and in the right figure all localities with dragonfly records are presented.

The results of all fieldwork carried out in Sri Lanka in the frame of Rufford Small Grant can be summarized as follows. Altogether, 210 localities with confirmed presence of dragonflies have been surveyed, whereby the total number of visited localities has been much higher. Since the project is oriented towards covering odonatological »white spots« and focused on

selected critically endangered endemic species with special habitat requirements, that means that not necessarily the most attractive or species rich habitats were visited. Unfortunately, also many of the visited regions proved to be highly degraded and converted into absolute green desert of tea and rubber plantations. In this light, the total of 77 recorded species or 62% of the island's dragonfly fauna is a nice achievement. Among nearly 800 carefully documented and geolocated faunistic data, more than 60% belong to endemic species.

Out of 10 critically endangered endemic species according to the IUCN Red List of Threatened Species 2011, viz. *Sinhalestes orientalis*, *Drepanosticta adami*, *Drepanosticta hilaris*, *Drepanosticta montana*, *Elattoneura leucostigma*, *Anisogomphus solitaris*, *Heliogomphus ceylonicus*, *Heliogomphus nietneri*, *Heliogomphus lyratus* and *Macromia flinti*, which have been in special focus of the project, exactly the half have been found during the fieldwork in 2012. Although all previously known localities or broader regions with older faunistic data were revisited and surveyed, the species *Anisogomphus solitaris*, *Heliogomphus ceylonicus*, *Heliogomphus nietneri*, *Heliogomphus lyratus* and *Macromia flinti* have unfortunately not been rediscovered in the frame of the project. Large scale habitat destruction might be the main reason of their absence, however, since the literature data on their localities and biology are extremely scarce, it is always possible that the season or surveyed localities and search strategies were not optimal. Before declaring them extinct, more targeted and carefully planned fieldwork is needed.

As regards the other half of critically endangered species which have been in focus of the project, the results are more encouraging. One of the absolute highlights of the project is the rediscovery of enigmatic *Sinhalestes orientalis*, a sole representative of endemic monotypic genus. The species has been first reported from Sri Lanka in 1859 and in the last 150 years there have been no records despite active search around Rambodde, its type locality. Also in 2012, the central part of the island in wider surroundings of Rambodde proved to be devastated and there was no sight of *Sinhalestes* anywhere despite surveying dozens of streams and various other habitats in the region. Just when the extinct label has almost been placed on its threat status, *Sinhalestes orientalis* has been surprisingly found in two forest streams near the Hatton-Balangoda road pass some 35 km south of Rambodde.



After 150 years since its description, first live observations and photographs of *Sinhalestes orientalis* from Sri Lanka were made in November 2012. (Photo: M. Bedjanič).

Also as regards *Drepanosticta adami*, *Drepanosticta hilaris*, *Drepanosticta montana* and *Elattonaura leucostigma* the fieldwork in 2012 was successful. New localities for these species have been found, but still, as stated in the first report, their distribution is very limited and habitats severely degraded due to tea and other crops cultivation, forest clearing, water extraction for cultivation and domestic use as well as increasing pollution of small streams and trickles.

For larger group of endemic species also presently included on the IUCN Red List of Threatened Species, viz. *Drepanosticta austeni*, *Drepanosticta submontana*, *Drepanosticta walli*, *Elattonaura caesia*, *Elattonaura oculata*, *Cyclogomphus gynostylus*, *Gomphidia pearsoni*, *Heliogomphus walli*, *Macrogomphus lankanensis*, *Microgomphus wijaya* and *Tetrathemis yerburii*, valuable new data on distribution were gathered.



Habitat of *Sinhalestes orientalis* near the Hatton-Balangoda road pass. First data on the type of habitat and seasonal phenology of the species have been obtained in the frame of Rufford Small Grant dragonfly project in Sri Lanka. (Photo: M. Bedjanič)

In logistic and financial terms the first and second part of fieldwork have been executed according to the plan. All new faunistic data are entered into the database and in January 2013 it will be closed for new entries and ready for analyses for the publication of *Distribution Atlas of the Dragonflies of Sri Lanka*. The basic aim of the first part of the project - to collect new faunistic data on endangered dragonfly fauna of Sri Lanka and to improve knowledge on globally endangered dragonfly species, their distribution, biology and habitats – has been successfully completed. Scientific papers with descriptions of some new taxa are in preparation. The publication of *Distribution Atlas of the Dragonflies of Sri Lanka* is scheduled for March/April 2013.