

Guardians of the watershed

Why "Guardians of the watershed"?

Doubtless, one of the world's biggest problems is related to its freshwater resources, i.e. freshwater availability for direct human use or for irrigation. Water scarcity and quality are already vital problems in some regions, and the affected area is growing dramatically.

Currently, almost 40% of the world's human populations experience serious water shortages. Wetlands, which have already been reduced by as much as 50% worldwide, store water, reduce flooding and provide habitats for an immense biodiversity for plants and animals. Odonata are optimal indicators of wetland health. While the habitat selection of adult dragonflies strongly depends on vegetation structure, their larvae develop in water and are critical in regard to water quality and aquatic habitat structure. A full array of different ecological types, from pioneers to specialists, occurs within the Odonata. This allows us to monitor habitat changes on the base of positive and negative indicators. Dragonflies are already used as indicators for wetland quality in Europe, Japan, the USA and Australia, but baseline data is also needed in other parts of the world in order to facilitate even wider applied research, conservation measures and long-term monitoring schemes.

In this issue all available information regarding the global threat status of dragonflies and their habitats is compiled by regional experts. Thirty-five authors report on 22 regions and together they cover almost the whole world suitable for odonate life. Only some Asiatic regions remain uncovered, either due to lack of information or due to the failure of authors. For each region a review on the odonatological history is given, critical odonate species as well as critical habitats and sites are listed and general implications for necessary conservation measures and research are provided. The References sections comprise altogether 1,460 cited papers – a tremendous source for further reading.

The present documentation will undoubtedly be of use to all odonatologists looking for global, but concentrated, information on the threats to dragonfly survival. The chief goal, however, is to provide information for nature conservationists, targeting especially the Species Survival Commission (SSC) of the International Union for the Conservation of Nature and Natural Resources (IUCN). The IUCN/SSC Odonata Specialist Group provided a first step in 1997, when "Dragonflies – status survey and conservation action plan" was published.

Here we have the second step: the IUCN Regional Reports. We sincerely hope that the reports will broadly influence the conservation of Odonata and their habitats.

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