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SOUTHEAST ASIAN PEAT SWAMP FOREST BIODIVERSITY LOST BEFORE EVEN BEING RECOGNIZED

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As peat swamp forest biodiversity has received relatively little scientific attention the value of this particular wetland habitat for biodiversity conservation is poorly understood. Some comparisons with biodiversity values of other tropical forest habitats lacked reference to special wetland species groups such as freshwater fish and dragonflies. Other studies have noted that that lack of sampling in peat swamp forests may have contributed to a skewed picture. They also noted that peat swamp forests support a substantial number of rare, specialised and threatened species. Peatlands of Southeast Asia harbour a high biodiversity. Surveys in Central Kalimantan, Indonesia, found a total of 54 species of Odonata (dragonflies and damselflies) in June-July 2012. Of the species found, 13 had not been recorded in Central Kalimantan previously, and of these at least five are completely new to science. Six species, originally described from Central Kalimantan and not recorded anywhere since 1953, were rediscovered. At least 16 of the species found during the survey are considered to be of conservation concern. The discovery of at least five new species to science in a relatively short survey indicates a high probability that many more species await discovery in this habitat, and that many undiscovered species may be lost or highly threatened by the rapid demise of peat swamp forest. Our survey was carried out entirely in the lowlands and concentrated on peat swamp areas, including many areas where logging and conversion to agriculture and plantations was on-going and remains a severe threat. Most of the remaining peat swamp forests, including those in protected areas, are affected by drainage from illegal logging channels which contribute to a high fire risk. In 2015 major fires raged through the peatlands of Central Kalimantan and other peatlands in Indonesia, and only larger protected areas appeared to be spared. Some of the peatland endemics and new species that we discovered were found only in small remaining forest patches that seemed very vulnerable to fire. It seems therefore likely that some of these may have already become extinct due to the fires in 2015, even before they could be described and receive a name.

***Keywords**: tropical peat swamp forest, Odonata, Central Kalimantan, peat fires*