

Report on dragonflies and damselflies (Odonata) in Akagera National Park, October-November 2023

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Found from everyone's backyard to the farthest ocean islands, dragonflies and damselflies stand for a fair and healthy planet. All 6400 species are confined to freshwater, from the muddiest puddles to the greatest lakes and clearest springs. If we consider their needs and diversity as we do our own, therefore, every course of water would be cared for. As all land drains into a river, moreover, and every river into the sea, we'd care better for the land and sea as well and, therefore, for all life.

To date, 117 species of these engaging insects are known from Rwanda. We have confirmed the presence of 61 within the limits of Akagera National Park. Another eleven were previously found by us on the stream and fishponds of the Nyankora Valley between Kabarondo and the park's South Gate. Eight further species were reported from the area by others, but locality data are either inaccurate or suitable habitat appears absent, so their identification and presence must be verified.

During the summer school in October and November 2023, 54 species were recorded within the park. *Lestes virgatus*, *Olpogastra lugubris*, *Orthetrum machadoi*, *Phaon iridipennis* and *Trithemis dorsalis* were additions to the park list, while *Lestes dissimulans*, *Lestes uncifer* and *Lestes pallidus* were even new for Rwanda. The identification of the latter's sole (female) specimen must still be verified, but the similar *L. ochraceus* would also be new for Rwanda. *Lestes* adults rapidly colonise temporary waters when these form early in the rainy season. Our timing was therefore ideal to find them and they were indeed abundant at most grassy puddles investigated.

Ranked as Vulnerable on the IUCN Red List, *Agriocnemis palaeforma* is the only odonate in the park considered threatened. This tiny damselfly is restricted to papyrus swamps in Rwanda and Uganda. Found previously in the papyrus 400 meters from the Akagera River at the far end of the Kageyo loop, this time we found it in the papyrus fringing the river at the park's extreme northern tip. Other than protecting the species' habitat, no specific conservation actions seem possible. However, it appears confined to habitat with a slight current. This implies that most swamps (e.g. further from the river) are unsuitable for its survival. It would, therefore, be worthwhile to test this hypothesis further and assess the overall health of papyrus swamps in the area.

Species of (strongly) flowing water are largely absent in the park. Some, such as *Phaon iridipennis* and *Zygonyx torridus*, may only pass through to disperse or feed, although the former might conceivably breed on rocky lakeshores. Unfortunately, the Akagera River itself and the Nyankora (that runs into the park at the South gate) appear in poor health, although access and weather have inhibited the proper sampling of these rivers for Odonata.

African Parks can do little to mitigate the extreme siltation of the Akagera River, but it is encouraging that the Nyankora downstream from the community centre will be rehabilitated. Establishment of a 100m buffer zone along the park border will also improve the protection of freshwater habitat in the area. We recommend that the Odonata here are monitored, anticipating that species seen just outside the park will soon be found within it: *Pseudagrion spernatum*, *Crocothemis sanguinolenta*, *Orthetrum chrysostigma*, *Trithemis dichroa*, and *Trithemis pluvialis* favour fairly open streams, often with some rocks, while *Agriocnemis victoria*, *Proischnura subfurcata*, *Orthetrum camerunense*, *Pseudagrion massaicum*, *Trithemis nuptialis*, and *Trithemis stictica* prefer marshier sites, although often with some current too. Finding the unconfirmed species (if they are present at all) is also likeliest here: *Africallagma*

pseudelongatum, *Atoconeura pseudeudoxia*, *Crenigomphus hartmanni*, *Hadrothemis versuta*, *Microgomphus nyassicus*, *Orthetrum guineense*, *Orthetrum hintzi*, and *Palpopleura jucunda*.



Anax tristis – Africa's largest dragonfly – caught by Adrien Nkundimana at Lake Mihindi (Nov 2023, KD Dijkstra).



Agricognemis palaeforma – a globally threatened damselfly species found in the Papyrus Swamps along Kagera River (Viola Clausnitzer).