

First Record of the Dragonfly *Erythemis attala* (Selys in Sagra, 1857) (Odonata: Libellulida) for Trinidad, West Indies

Dragonflies are an ancient group of predatory arthropods belonging to the order Odonata, infraorder Anisoptera. They are almost exclusively carnivorous and can be observed in the field eating a wide variety of insects ranging from mosquitoes to butterflies, moths, damselflies and even smaller conspecifics. Adults are characterised by large multifaceted eyes, two pairs of strong transparent wings that are held horizontally both in flight and at rest, sometimes with coloured patches and an elongated body. About 3000 extant species are known (Zang 2011), with most found in tropical regions (Powell 1999). They can also be found at varying elevations ranging from sea level up to the mountains, however, there is a subsequent decrease in species diversity with altitude (Carchini *et al.* 2005). Dragonflies also inhabit every type of aquatic habitat, from the most pristine streams to swamps and even roadside ditches. Their sensitivity to habitat qualities such as water chemistry and their amphibious life cycle together with their relative ease of identification make dragonflies well suited for evaluating environmental changes (Kalkman *et al.* 2010), and this together with other key features and attributes nominates them as excellent candidates to serve as biological indicators for the monitoring of ecosystem health and integrity.

On 20 August 2016 I was conducting a field survey of dragonflies in the Nariva Swamp as part of the FAO-GEF funded project “*Improving Forest and Protected Area Management in Trinidad and Tobago*”. As part of the project, baseline surveys are being conducted to identify and assess indicator species for future and ongoing monitoring in each of six proposed protected areas across Trinidad and Tobago. During a survey at the western edge of Nariva Swamp (10°27'34.7"N, 61°04'27.8"W), I photographed a female *Erythemis attala* (Selys in Sagra, 1857), darting back and forth over the edge of a stagnant body of water. At first glance it appeared to be *Erythemis plebeja* also known as the Pin-tailed Pondhawk, the closest resembling species in the genus. However, upon closer examination of the photograph this proved to not be the case as it had two distinctive white spots on the abdomen. Positive identification was subsequently sought by one of the world's pre-eminent odonatologists, Nick Donnelly, who confirmed the species. *E. attala*, also referred to as the Black Pondhawk, is an agile blackish species, with large blackish spots on base of hind wing and a body length of 42-44mm Needham *et al.* 1975. Their incessantly active species makes them difficult to collect. Its previously known range includes the West Indies as

well as countries from Texas south to Argentina (Paulson 2012). In the West Indies these include countries primarily in the Greater Antilles: Cuba, Haiti, Jamaica, Martinique (Needham *et al.* 1975) as well the Dominican Republic. Its presence here in Trinidad therefore suggests that this species is dispersing and expanding its range within the West Indies. However, because it is also distributed throughout the South American continent, most notably Venezuela, whose fauna we share many similarities with, it might just be a case where this species always existed and went undiscovered due to the limited field work conducted on dragonflies as a whole, or when encountered in the field, mistaken for its relative, *E. plebeja*.

On a global basis, members of the genus *Erythemis* Hagen, 1861, are commonly known as Pondhawks and comprises ten species distributed in the Neotropical and Nearctic regions, which are found from sea level to 2300 meters above sea level. These medium- to large-sized skimmers are voracious predators of other insects up to their own size, including other dragonflies (Paulson 2009). Six species of this genus were previously recorded from Trinidad and Tobago as listed in the monograph, “The Dragonflies & Damselflies of Trinidad and Tobago” by John Michalski (2015) (See book review on page 71 of this issue). This new species record therefore brings the number of *Erythemis* species inhabiting the islands to seven, and drives up the total number of Odonata that inhabit the islands to 122.

It would be worthwhile to make a return trip to this location to conduct further surveys and get an estimate of population size and distribution within this Protected Area.

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Fig 1. Adult female *Erythemis attala* (Selys in Sagra, 1857) hovering over waterbody. (Tip of head to tip of abdomen approx. 72 mm in length).

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Rakesh Bhukal

Department of Life Sciences, Faculty of Science and Technology, UWI, St. Augustine
School of Veterinary Medicine, Faculty of Medical Sciences, UWI, St. Augustine
rbhukal101@gmail.com