

11. THE ODONATA OF THE CAYMAN ISLANDS, BRITISH WEST INDIES

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On each of the Cayman Islands there are several lagoons. These are of varying salinity and are undoubtedly the most important breeding sites of dragonflies. There are also accumulations of standing fresh-water but these are generally small and mostly temporary. Fraser (1943) provides a synopsis of the types of dragonfly breeding areas found on the islands.

Dragonflies constitute a conspicuous and abundant component of the entomofauna. Published information on the Odonata of the islands appears to be limited, however, to a paper by Fraser (1943) in which the results of the 1938 Oxford University expedition are described.

In 1975 the Royal Society - Cayman Islands Government expedition was based for about five weeks on Little Cayman and eight and four days were spent respectively on Grand Cayman and Cayman Brac. The Oxford University expedition collected mainly on Grand Cayman over a period of 109 days. Twelve species are recorded from the islands by Fraser (1943) and to this number five species can now be added (table 18).

Grand Cayman evidently supports the largest number of species. More were taken there in the few days collecting in 1975 than were taken during the much longer period on Little Cayman. There is little doubt that more species await discovery on Grand Cayman and Cayman Brac, although the list for Little Cayman is probably very nearly complete.

No endemic forms are known on the Cayman Islands, perhaps not surprisingly in view of their proximity to Cuba, Jamaica and Central America. Many of the species recorded are migratory with large geographical ranges, and all are widespread in the Greater Antilles.

Anax amazili (Burmeister)

Two seen hawking over the *Sesuvium* marsh at the east end of Little Cayman, August 5th. The marsh is quite extensive, its eastern

Table 18. Species of Odonata recorded from the Cayman Islands by the 1938 Oxford University Expedition and the 1975 Royal Society-Cayman Islands Government Expedition.

	Grand Cayman		Cayman Brac		Little Cayman	
	1938	1975	1938	1975	1938	1975
ANISOPTERA						
Aeshnidae						
<i>Anax amazili</i>	x	-	-	-	x	x
<i>Gynacantha nervosa</i>	-	x	-	-	-	-
Libellulidae						
<i>Brachymesia furcata</i>	x	-	x	-	x	x
<i>Erythemis plebeja</i>	x	-	-	-	-	-
<i>Erythrodiplax naeva</i>	x	x	x	x	x	x
<i>E. fervida</i>	-	x	-	-	-	-
<i>E. connata</i>	-	-	-	-	?	-
<i>E. umbrata</i>	x	x	x	x	x	x
<i>Leptthemis vesiculosa</i>	x	x	-	-	-	-
<i>Micrathyria didyma</i>	x	-	-	-	-	-
<i>Orthemis ferruginea</i>	x	-	x	-	-	x
<i>Pantala flavescens</i>	x	x	-	x	x	x
<i>P. hymenea</i>	x	-	-	-	x	-
<i>Tramea abdominalis</i>	-	-	-	-	-	x
<i>T. cophysa</i>	x	-	-	-	-	-
ZYGOPTERA						
Lestidae						
<i>Lestes spumarius</i>	x	-	x	-	-	-
Coenagrionidae						
<i>Anomalagrion hastatum</i>	-	x	-	-	-	-
<i>Ischnura ramburi</i>	-	x	-	-	-	-

edge being about 500 metres from the east coast from which it is separated by bluff limestone and storm beach. *Sesuvium* grows luxuriantly over about $\frac{1}{4}$ sq. km. of wet ground interspersed with a number of small, shallow pools. All species of dragonfly recorded by us from Little Cayman were seen at this place.

Gynacantha nervosa (Rambur)

A single female captured flying in a lighted building in Georgetown, Grand Cayman at 1.00 a.m., August 12th.

Brachymesia furcata (Hagen)

Seen on Little Cayman at several lagoons, particularly in the east, between July 30th and August 5th, and also on the storm beaches and occasionally in the interior. It spends much time perching on twigs and is easily recognised by its reddish abdomen and coloured hind wing bases.

Erythemis plebeja (Burmeister)

Not observed in 1975.

Erythrodiplax naeva (Hagen)

The most abundant species and found on all three islands. On Little Cayman it occurred everywhere, very common near the coastal lagoons and on the storm beaches, but also penetrating the interior and being seen at the summit of Sparrowhawk Hill. Throughout the period of the expedition, blackish mature adults and yellow and black immature specimens were noted.

E. fervida (Erichson)

A single female found on uncultivated ground in Georgetown, Grand Cayman on August 13th.

E. connata (Burmeister)

Insects seen but not captured by the 1938 expedition flying over *Zostera* beds inside the fringing reef at Bloody Bay, Little Cayman, are considered (under the name *Erythemis minuscula* (Rambur)) to be referable to *E. connata* (Fraser 1943). *Erythrodiplax minuscula* auct. from the West Indies is *E. connata connata* (Burmeister) (Borror 1942).

E. umbrata (L.)

Recorded from all three islands in both 1938 and 1975. In 1975 it was widespread but not common on Little Cayman, and appeared to be more numerous on the other two islands. On Grand Cayman it was abundant at West Bay. Two mature females and one male only were

taken, a female from Grand Cayman having almost hyaline wings whilst a female from Cayman Brac has very dark wing patches.

Leptemis vesiculosa (F.)

An attractive green dragonfly with a long, slender abdomen, possibly confined to Grand Cayman. In 1975 it was seen at West Bay on July 6th and a male was taken on August 13th over marshy ground beside the mid-island road.

Micrathyria didyma (Selys)

Not observed in 1975.

Orthemis ferruginea (F.)

A large, red-bodied dragonfly observed quite commonly at the *Sesuvium* marsh, Rosetta Flats and Diggary Point on Little Cayman. The species settles frequently on twigs.

Pantala flavescens (F.)

This large, yellowish dragonfly was common on Little Cayman throughout the period of the expedition, but it was almost confined to areas adjacent to the coastal lagoons. Here numbers could be seen together hawking, probably for mosquitoes, at a height of four or five metres. These flocks dispersed at sunset when the insects went to roost in mangroves fringing the lagoons.

P. hymenea (Say)

Although taken more frequently than the preceding species by the 1938 expedition and found then on Little Cayman, this species was not observed in 1975.

Tramea abdominalis (Rambur)

A single male only of this large red dragonfly with boldly marked hindwing bases was captured, although several were seen, including pairs in tandem, on Little Cayman at Rosetta Flats and the *Sesuvium* marsh. The species settles only rarely and hawks at a height of about five metres.

T. cophysa (Selys)

No examples of this species was noted in 1975. It is said (Needham and Westfall 1955) to be distinguishable in flight from its congener above by its reddish venation and black subterminal abdominal segments.

Lestes spumarius (Selys)

Not observed in 1975.

Anomalagrion hastatum (Say)

A strong colony of this very small damselfly was found on marshy ground beside the mid-island road, Grand Cayman on August 13th.

Ischnura ramuri (Selys)

Several specimens of this damselfly were seen, and a female was taken on uncultivated land in Georgetown, Grand Cayman, on August 13th. The species was not found by the 1938 expedition although Fraser (1943) anticipates its discovery on the islands.

The material collected in 1975 is deposited in the Manchester Museum and British Museum (Natural History).

References

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