

Some Additional Records on the Odonata of Trinidad

By JOHN MICHALSKI

90 Western Avenue, Morristown, New Jersey, 07960, U.S.A.

In 1988, The Department of Zoology at UWI published *A Catalogue and Guide to the Dragonflies of Trinidad* (Occasional Papers No. 6), a work that was largely completed by me in June of 1986. What follows are some additional records and related notes on several species that I had not personally collected at the time of that publication. These records hail, for the most part, from a two-month visit I made to Trinidad in March of 1988. For ten days of this visit, I was accompanied by Jerrell Daigle, an outstanding amateur collector from Gainesville, Florida, and Dr. Sid Dunkle, also a great collector and a professor at the University of Florida.

No "new" species were added to the known list of Trinidad Odonata, but several species were collected which had been mere "rumors" to me up to this point. The purpose of this article is to fill out the existing publication with additional first-hand knowledge on species that were either rarely or not at all seen by me personally back in June of 1986.

The first thing I learned from Sid Dunkle was that lowland forest streams are never to be overlooked in the search for Odonata. Up until that point, I am sorry to admit, I had regarded the cool, extremely shaded environment of the forest stream as less than optimal for dragonfly collecting. Much to my chagrin, several places that in the past had seemed unpromising to me turned out to be very good odonate habitat indeed. Two locations in particular were given plenty of attention. These were: 1) a small forest stream running through the margin of the pine plantation that adjoins the Aripo Savanna reserve; and 2) the river that crosses the Valencia Road at B1/7 (Bridge 1, mile 7). What follows are the new records.

Lestes tenuatus Rambur - I collected one male in a cow pasture, along the Valencia Road near the Oropuche River. This species is slate grey with a blue tip to the abdomen and is larger than either *L. mediorufus* or *L. forficula*, both of which I was previously familiar with. This particular specimen was resting in some tall grasses that overhang a dry drainage ditch that crosses the pasture.

Neoneura esthera Williamson - I was previously familiar with this species, though only from a very few locations. Sid took us to a site he had been to previously where the Aripo River crosses the Eastern Main Road just west of Valencia. We found several *N. esthera* mating and flying underneath bushes that overhang the river on the east bank, about 100 metres downstream from the bridge.

Protoneura tenuis Selys - Previously, this had been the very rarest Trinidad odonate that I had personally come across. During the two-month visit in March-May 1988, however, I discovered several new locations where the species may be found. Along three rivers (the Marianne, the Miguel and the Rio Seco), I found *P. tenuis* in the most strenuously particular circumstances. In montane rivers with a sandy or gravelly bottom, along bends in the river where recesses in the bank allow the water to become a bit still, where there are bedrock outcroppings and Maraval Lilies overhanging the water, *tenuis* can be found mating and guarding territories. Their gleaming white sides, combined with their crimson thoracic dorsum and fiery red eyes, make identification simple for this outstanding and beautiful rarity.

Acanthagrion sp. nov. ? - This is the peculiar green species of *Acanthagrion* that I referred to in the 1988 book (where I

pointed out that the well-known species, *kennedii*, is bright blue whereas this one is bright leaf green). At that time, I had found only a few individuals fitting this description at a small creek in Aripo Savanna and at the Guanapo River near the quarry. In total, I had three such specimens, and conceded that they best matched Leonard's description for *kennedii*, though I did not feel they were that species.

On the more recent visit, I found a thriving colony at the river that crosses the Valencia Road at B1/7. It had been Dr. Dunkle's opinion that these green insects were in fact the *kennedii* that Leonard was referring to, even though the species had previously been described as bright blue - just as I had found them to be. He believed the blue specimens to be those that had not yet attained mature coloration. I disagree, and in addition to the colour differences that I related in the 1988 book, I have discovered a consistent difference in the pattern of black markings on the prothorax and the top of the head. Moreover, it is my contention that the two groups (the blue and the green) have not been found in the same locations, and I have no direct evidence that these colour differences can be found in the same populations. At the very least, I feel that it is worth further investigation. This could well become a "new" species and one that is so far indigenous to Trinidad. Finally, there remains the possibility that these insects belong to the species *vidua*, which is recorded from Trinidad but which I have not so far identified.

Argia insipida Hagen - This is a species that I had not previously collected when the 1988 book went into publication. Dr. Dunkle brought us to a location where he had taken them on a previous visit to Trinidad (at the Aripo River where it crosses the Eastern Main Road). We came up with a good series of *A. insipida*, both males and pairs in tandem. We were also able to find the species at the Oropuche where it crosses the Valencia Road. *A. insipida* is an outstanding species of *Argia*, large and predominantly bright sky blue; the mated pairs are a spectacular sight.

Dr. Dunkle gave me the impression that *insipida* is extremely local, and found only in Trinidad and northern Venezuela.

Telebasis griffinii - Another species that I had not previously seen, I collected one male at the Sewage Ponds in Laventille. It was flying deep among the sedges that grow along the eastern side of the pond. I did not see any others at the time. It is bright, blood red, with a greenish thorax, and this alone should set it apart from most other Trinidad Zygoptera.

Aphylla producta Selys - Once again, a thriving colony of this species was located along the defunct railroad bed that leads from the Forestry Division Headquarters into the Aripo Savanna. Also worthwhile were some of the roads that led perpendicularly from this road into the pine plantation.

Phyllocycla anduzei Needham - The three of us took the long trip down to the Poole River at Fonrose (where it crosses the Mayaro Road at the Victoria County border); the species had been previously collected here by K.W. Knoop. The river was all but dry - literally made up of 'pooles' - and we did not find the species this time around. We were, however, able to come up with several interesting libellulids, which will be discussed in more detail later.

Phyllogomphoides cornutifrons Needham - This is, so far, considered an indigenous species, and one that has been

described only from the females. It was originally collected at the Mount St. Benedict ravine but Jerrell Daigle had received a tip that the species could be found at the Arima River (where it crosses the Blanchisseuse Road just below Simla). We spent some hours at this location, but did not see *Phyllogomphoides*. Jerrell did, however, succeed in capturing a single specimen of *Progomphus*, which, though known from the island, has heretofore never been published as a national record.

Gynacantha nervosa Rambur - I collected a female, flying in the afternoon, at the same cow pasture described under *Lestes tenuatus*. This was the first time I've seen the species in broad daylight.

Staurophlebia reticulata obscura Walker - Previously, I had seen this species only at the Quaragoon River in Chatham. Though we did see it in abundance at this location on the more recent trip, we also found it at the creek in the Aripo Savanna (the one that weaves through the margin of the pine plantation). Dr. Dunkle caught a fine female and Jerrell captured a mating pair (in copula), which may be the first time on record for this subspecies. It seems, from the available literature, that *obscura* is an indigenous subspecies. Jerrell's pair was taken along the railroad bed when they landed under one of the small bridges there. It was previously my belief, on examining the available preserved material, that this species was green with a purple or brownish abdomen (and I went so far as to say so in an article in the 1987-1988 *Living World*). The living animals are in fact a bright leaf green all over the body, with some black markings. For the amateur, they would be rather difficult to distinguish from *Coryphaeschna viriditas*.

Anatya guttata Erichson - Here is a species that was, in its living state, previously unknown to me; it is actually quite abundant in its habitat. A somewhat tired specimen from the UWI collection was all that I had when I wrote my account for the 1988 book. Instead of a drab grey, the living insect is a pale sky blue in the male (females are the grey colour that I had attributed to the males). They can be quite numerous in forest stream areas, and can make a nuisance of themselves when rarer quarry is being stalked. Dr. Dunkle, Jerrell and I found them at B1/7 on the Valencia Road and at the creek in the Aripo Savanna pine plantation.

Dythemis cannaeoides Calvert - In the 1988 book I had indicated that this was a deep-forest species, and that I had not yet seen a female. On the last visit, Sid succeeded in capturing a female (they resemble the males very closely) at the Arima River at Simla. Additionally, on a later visit to the same site with Caroline Chaboo and Johanna Darlington (of the UWI Dept. of Zoology), I found the species most numerous.

Elga leptostyla - I was not previously able to include much information on this species in Trinidad, as the only records were not available for publication in the 1988 book. Dr. Dunkle did, however, collect one female of this species in April of 1988, at the creek that weaves through the pine plantation at Aripo Savanna. They are conspicuously marked in bright lemon yellow with broad black markings; this is probably the only small dragonfly in Trinidad with these body colors.

Erythemis haematogastra Burmeister - I had not previously taken this species when the 1988 book came out. My two companions and I found the species at B1/71 on the Southern Main Road in Chatham, and at B1/7 on the Valencia Road; on another occasion I found the species at a ditch along the Guayaguayare Road in Mayaro and at a water hole in Erin. As the Latin name implies, the species has a conspicuous blood red abdomen, which sets it apart from anything else in its genus.

Erythrodiplax unimaculata de Geer - Dr. Dunkle located this species in fair abundance at a woodland stream that crosses the Cunapo Southern Road near Rio Claro. We also found several in St. Patrick County, along a stream in a field near Bonasse.

Erythrodiplax sp. nov. (undescribed) - There is a species of *Erythrodiplax* that has been discovered breeding in the water that accumulates in bromeliads. In April of 1988, Dr. Dunkle and I visited the type locality (in fact, the type locality is restricted to a single large bromeliad) and there found several exuviae of this species. We did not see the adults, which previously had been observed hovering over the bromeliad and shooting their eggs down into the leaf wells. Until it has been formally described, it has been provisionally assumed that this represents a new species and one that is so far indigenous to Trinidad.

Macrothemis hemichlora Burmeister - At the time of the 1988 book, I had collected this species only once. The female specimen I had did not display the pronounced green body markings that are supposed to be the hallmark of the species. In May of 1988, I caught two more females, down on the Moruga Road near the coast, which conformed more to the usual description. They were part of a small swarm that was flying over a creek and across the road.

Macrothemis imitans leucozona Ris - I finally succeeded in collecting one of this species at the Arima River where it most closely approaches the driveway to Simla. This is the first documented specimen taken in Trinidad since 1930.

Miathyria simplex Rambur - By June of 1986 I had seen this species only in the Caltoo Trace area of Nariva Swamp. In April of 1988 we came across many of them at a pond along the Cunapo Southern Road near Rio Claro. In addition to several males that were guarding their territories, there was a lot of mating activity.

Micrathyria atra Martin - This was a species that I had not yet collected by June of 1986. In April of 1988 I discovered a healthy population at the cement pools at Simla (the pools on the downhill side of the driveway). Both males and females were present, and mating behavior and oviposition were occurring regularly at the pools.

Micrathyria laevigata Calvert - In addition to the specimens documented in the 1988 book, several specimens were taken along the defunct railroad bed at the Aripo Savanna during the April collecting trip.

Micrathyria spinifera Calvert - I had not seen this species before, the only recorded Trinidad specimen having been taken by Williamson in 1912. Dr. Dunkle succeeded in catching a few in April of 1988; he found them in the same locations as we found the *Anatya guttata*.

Oligoclada walkeri Geijskes - This is apparently a geographical peculiarity. Most of Trinidad's species hail from the Venezuela/Columbia area of the mainland but *walkeri* is known only from the Guiana/Amazon region. I had no specimens at the time of publishing the 1988 book (a situation that led to an unfortunate oversight in the generic key on page 65) but Dr. Dunkle came across a few when he, Jerrell Daigle and I first went to the B1/7 site on the Valencia Road. We found a healthy population at this place, and we came upon a second population at the creek that winds through the pine plantation at Aripo Savanna. Our series of about 20 specimens represents half of the known Trinidad material, and the only specimens on record since 1930.

Orthemis cultriformis Calvert - According to Dr. Dunkle, the females of this species are rare in collections. In April of 1988, the three of us found a healthy colony of young adults of both sexes, along the railroad bed that leads to Aripo Savanna

#3 (the same location where we found the *Aphylla producta* colony). Males and females were equally abundant and a large series of females was taken.

Perithemis electra Ris - I had not knowingly come across this species until Dr. Dunkle, Jerrell and I went to the B1/7 site on the Valencia Road. These, *unlike* most other *Perithemis* species, prefer sun-dappled areas in otherwise deeply shaded forest streams. We also found the species at the Poole River where it crosses the Victoria Country border at Fonrose.

Perithemis thais Kerby - I had previously collected this species only at the Quaragoon River in Chatham, but I have since taken it at the B1/7 site on the Valencia Road, and at the Poole River site mentioned above.

Tauriphila australis Hagen - I had previously taken the species at the Sewage Ponds at Laventille. Additional locales for this species are at a pond on the Erin Road near the coast and at the pond on the Cunapo Southern Road near Rio Claro.

Tramea abdominalis Rambur - Although it had never really been substantiated as a Trinidad species, I had long felt that I had indeed seen this conspicuous, red *Tramea* flying around Trinidad, but had never succeeded in capturing one. The only previous specimen on record for Trinidad was in some doubt as there are no data with it. I found a thriving colony at Simla over the same pools where the *Micrathyria atra* were collected.

References

MICHALSKI, JOHN, 1988. A Catalogue & Guide to the Dragonflies of Trinidad. Occasional Papers No 6, Zoology Dept., Univ. of the West Indies. 146 pp.