

SOME ODONATA FROM BELIZE, CENTRAL AMERICAG.J. MEASEY¹

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¹ Present address: School of Biological Sciences, University of Bristol, Woodland Road, Bristol BS8 1UG, United Kingdom**Abstract**

More than 100 spp. were collected from September 1991 to July 1992 from 39 locations. Many

of these had not previously been recorded from Belize. The implications of this study are briefly discussed.

Introduction

Belize (formerly British Honduras), Central America, lies at latitude 17°N and longitude 89°W. Over an area of 22963 square kilometres (8866 square miles) vegetation changes from the deciduous sub-tropical moist limestone forests of the north, to the evergreen taller forest in the mountainous south and west (highest point: 1122 m). Rivers are bordered by swamp forests; oaks and pines grow on some plateau ridges; the coast is fringed with mangrove; and the southern coastal plain is composed of savanna grassland. The climate is subtropical (mean temps: Belize City December 23°C, July 29°C) with distinct wet (June to November) and dry (late February to May) seasons.

The Odonata of Central America has probably best been described by CALVERT (e.g. 1908) at the beginning of this century, although the focus for his work was Costa Rica. About 40 species are known from Belize (PAULSON, 1982), most of which occur throughout Central America.

This work represents a collection of 696 specimens of Odonata of more than 100 species from September 1991 to July 1992, from 39 localities. The species list was made from identification of the specimens using literature and specimens deposited in the Natural History Museum, London. The locations vary from salt water marshes to mountain streams, and from many parts of the country. The numbers following the species names correspond to the site descriptions below.

Site descriptions

BD: Belize District; – CaD: Cayo District; – CoD: Corozal District; – OWD: Orange Walk District; – SCD: Stann Creek District; – TD: Toledo District.

- (1) BARACUDA TRAIL (CoD)
Map Ref.: 18°18'00"N 88°17'00"W
Altitude: 20 m
Date(s): 1-VI-1992
Description: Sub-tropical moist forest. Leading to a brackish water lagoon. Shady.
- (2) BIG FALLS (TD)
Map Ref.: 16°15'30"N 88°53'00"W
Altitude: 20 m
Date(s): 31-III-1992
Description: River, Rio Grande. Fast flowing. Depth 0.7 m, width 10 m, Surround-

ing vegetation, cleared for village, otherwise forest. Open.

- (3) BLUE CREEK (TD)
Map Ref.: 16°12'00"N 89°03'00"W
Altitude: 40 m
Date(s): 3,23-IV-1992 & 22-VII-1992
Description: River, Blue Creek. Fast flowing with one large pool. Depth 0.4 m to > 2 m, width 7 m. Surrounding vegetation, forest. Shady.
- (4) CARACOL (CaD)
Map ref.: 16°45'30"N 89°07'30"W
Altitude: 500 m
Date(s): 28-II/7-III-1992 & 23/26-V-1992
Description: Pond, Fresh water. Diameter 15 m. Depth 1.5 m. Vegetation, water lettuce covering water surface surrounded by forest. Shady.
- (5) CHAN CHICH CREEK (OWD)
Map Ref: 17°30'30"N 89°08'00"W
Altitude: 110 m
Date(s): 10-VI-1992
Description: River, Chan Chich Creek. Slow moving. Dept > 2 m, width 7 m. Substrate, sand. Surrounding vegetation, forest. Shady.
- (6) CHAN CHICH, AGUADA (OWD)
Map Ref: 17°30'30"N 89°08'00"W
Altitude: 140 m
Date(s): 10-VI-1992
Description: Pond. Fresh water. Depth 1 m, diameter 5 m. Substrate, mud. Surrounding vegetation, surface covered in water lettuce, and surrounded by trees. Shady.
- (7) COCKSCOMB BASIN WILDLIFE RESERVE, ANTELOPE STREAMS (SCD)
Map Ref: 16°45'00"N 88°27'00"W
Altitude: 90 m
Date(s): 4/8-I-1992 & 18/20-VII-1992
Description: Streams. Flowing. Depth 0.3 m, width 0.3 to 1.5 m. Substrate mud to stones & boulders. Surrounding vegetation, forest. Shady.
- (8) COCKSCOMB BASIN WILDLIFE RESERVE, SOUTH STANN CREEK (SCD)
Map Ref: 16°45'00"N 88°27'00"W
Altitude: 85 m
Date(s): 4/8-I-1992 & 18/20-VII-1992
Description: River, South Stann Creek. Fast flowing. Depth > 1 m, width 15 m.

- Substrate, stones. Surrounding vegetation, dumb cane and forest. Open. note: From 4-I to 8-I-92, flood pools also present alongside the river.
- (9) COCKSCOMB BASIN WILDLIFE RESERVE, VICTORIA STREAMS (SCD)
Map Ref: 16°45'00"N 88°27'00"W
Altitude: 90 m
Date(s): 4/8-I-1992 & 18/20-VII-1992
Description: Stream. Flowing. Depth 0.3 m, width 1.0 m. Substrate, silt and stones. Surrounding vegetation, dumb cane and forest. Open.
- (10) COLUMBIA BRANCH (TD)
Map Ref: 16°15'00"N 89°04'00"W
Altitude: 218 m
Date(s): 23-VII-1992
Description: River, Columbia Creek. Very fast flowing. Depth 0.2 to 0.7 m, width 5 m. Substrate, boulders. Surrounding vegetation, forest. Shady.
- (11) FRANCILIA CAMP, MACAL RIVER (CaD)
Map Ref: 16°51'00"N 88°55'30"W
Altitude: 435 m
Date(s): 14/15-II-1992
Description: River, Macal. Fast flowing. Depth 0.3 m to > 2 m, width 15 m. Substrate stones and mud. Surrounding vegetation, dumb cane and riparian forest. Open.
- (12) GALLON JUG, ZIBAL SWAMP (OWD)
Map Ref: 17°33'30"N 89°02'30"W
Altitude: 115 m
Date(s): 10-VI-1992
Description: Marsh with trickle stream. Fresh water. Vegetation, grass & reeds. Open.
- (13) GALLON JUG, TAPIR HOLE & TRACK (OWD)
Map Ref: 17°35'00"N 89°04'00"W
Altitude: 115 m
Date(s): 11-VI-1992
Description: Pond and forest. Fresh water. Depth > 1 m, diameter 15 m. Substrate, mud. Surrounding vegetation, grasses and forest. Shady.
- (14) GALLON JUG, TAPIR HOLE ROAD STREAM (OWD)
Map Ref: 17°35'00"N 89°04'00"W
Altitude: 115 m
Date(s): 11-VI-1992
Description: Stream. Flowing. Depth 0.2 m, width 0.7 m. Substrate stones & sand. Surrounding vegetation, the stream flows through forest, but also flows under the road where there is dense secondary vegetation. Shady and open.
- (15) GALLON JUG, LAGOONA SECA (OWD)
Map Ref: 17°33'30"N 89°02'30"W
Altitude: 100 m
Date(s): 12-VI-1992
Description: Reservoir. Fresh water. Depth > 2 m, diameter 2000 m. Substrate silt on rock. Surrounding vegetation, grass & reeds. Open.
- (16) GALLON JUG, LAGOONA VERDE (OWD)
Map Ref: 17°33'30"N 89°02'30"W
Altitude: 100 m
Date(s): 11-VI-1992
Description: Lagoon. Fresh water. Depth > 2 m, diameter 1000 m. Substrate silt on rock. Surrounding vegetation, forest. Open.
- (17) GRANA DE ORO (CaD)
Map Ref: 16°40'00"N 89°01'30"W
Altitude: 560 m
Date(s): 15-VII-1992
Description: Stream, fast flowing water. Depth 0.1-0.2 m. Width 0.5 m. Substrate mud. Surrounding vegetation secondary growth, 1-3 m high. The water was covered by the vegetation beside the site where the trail crossed the stream.
- (18) GUACAMAYO BRIDGE, MACAL RIVER (CaD)
Map Ref: 16°52'00"N 89°02'00"W
Altitude: 355 m
Date(s): 20-II-1992
Description: River, Macal. Fast flowing. Depth 0.5 m, width 20 m. Substrate boulders. Surrounding vegetation, oak & pine and riparian forest. Open.
- (19) GUACAMAYO BRIDGE, TRIBUTARY OF THE MACAL RIVER (CaD)
Map Ref: 16°52'00"N 89°02'00"W
Altitude: 355 m
Date(s): 20-II-1992
Description: Stream, Macal tributary, Fast

- moving with deep pools of still water. Depth 0.5 to 2.5 m, width 1 m. Substrate, caste limestone & silt. Surrounding vegetation, riparian forest. Shady.
- (20) KINLOCHS CAMP, MACAL RIVER (CaD)
 Map Ref: 16°51'30"N 88°54'00"W
 Altitude: 435 m
 Date(s): 11/12-II-1992
 Description: River, Macal. Fast flowing. Depth 0.3 m, width 15 m. Substrate, stones. Surrounding vegetation, riparian forest. Open.
- (21) KINLOCHS CAMP, TRIBUTARY MACAL RIVER (CaD)
 Map Ref: 16°51'30"N 88°54'00"W
 Altitude: 440 m
 Date(s): 11/12-II-1992
 Description: Stream, Macal tributary, Fast moving. Depth 0.2 m, width 3 m. Substrate, stones & boulders. Surrounding vegetation, riparian forest. Shady.
- (22) LITTLE BELIZE (CoD)
 Map Ref: 18°12'30"N 88°24'30"W
 Altitude: 10 m
 Date(s): 24-VI-1992
 Description: Stream. Fast flowing. Depth 0.4 m, width 1.5 m. Substrate, mud and shingle. Surrounding vegetation, reeds, grasses and mangrove. Open.
- (23) LOS CUEVAS (CaD)
 Map Ref: 16°44'30"N 88°09'00"W
 Altitude: approx 500 m
 Date(s): 14-VII-1992
 Description: Grassy ponds, depth 0.1 m, diameter 5 m. Surrounding vegetation, secondary growth shrubs (1 m high). Open.
- (24) LUBANTUUM (TD)
 Map Ref: 16°17'00"N 88°57'30"W
 Altitude: 60 m
 Date(s): 2-IV-1992 & 21-VII-1992
 Description: Secondary growth area with fresh water ponds and streams.
- (25) M.E.T. HEADQUARTERS (CaD)
 Map Ref: 17°06'00"N 88°57'30"W
 Altitude: 240 m
 Date(s): 16/21-X-1991 & 4-IV-1992
 Description: Ponds. Fresh water. Depth 1.0 m, diameter 10.0 m. Substrate, mud. Surrounding vegetation, reeds and grasses.
- Open.
- (26) M.E.T., VEGA (CaD)
 Map Ref: 17°05'30"N 88°57'00"W
 Altitude: 220 m
 Date(s): 16/21-X-1991 & 4-IV-1992
 Description: Stream. Fast flowing. Depth 0.3 m, width 2.0 m. Substrate, stones. Surrounding vegetation, forest. Shady.
- (27) NEW RIVER (OWD)
 Map Ref: 18°01'30" to 18°04'30"N; 88°32'00" to 88°32'30"W
 Altitude: 20 m
 Date(s): 2-X-1991
 Description: River. New River from Toll Bridge to Orange Walk. Slow moving. Depth > 5 m, width 15 m. Substrate, mud. Surrounding vegetation, cleared for sugar cane fields and agriculture but riparian forest intact. Open.
- (28) PROGRESSO LAGOON (CaD)
 Map Ref: 18°14'00"N 88°24'00"W
 Altitude: 10 m
 Date(s): 23-XII-1992
 Description: Lake, Progresso Lagoon. Fresh water. Depth > 2 m, width 1500 m, length 10000 m. Substrate, silt covered rock. Surrounding vegetation reeds and grasses. Open.
- (29) PUENTE NATURAL (CaD)
 Map Ref: 16°34'00"N 89°01'00"W
 Altitude: 600 m
 Date(s): 16/19-VII-1992
 Description: All specimen were caught along the trail in high (30 m and higher) forest. The trail had deep tracks, filled with water, sometimes with fast flowing water. Substrate mud. Shady.
 No specimen was caught in the river itself (because of the inaccessibility of the river). Characteristics of the river: very fast flowing water, width 10 m, depth 2-3 m. Substrate, sand. Shady (river is in a gorge).
- (30) RETIRO (CaD)
 Map Ref: 16°43'00"N 89°08'30"W
 Altitude: 380 m
 Date(s): 8-III-1992 & 27-V-1992
 Description: Pond. Fresh water. Depth > 2 m, diameter 100 m. Substrate, mud. Surrounding vegetation, forest & cleared area to allow horses access to the water, with

- grasses. Open.
- (31) RUBBER CAMP, MACAL RIVER (CaD)
Map Ref: 16°52'00"N 88°58'00"W
Altitude: 380 m
Date(s): 16/19-II-1992
Description: River, Macal. Slow moving. Depth > 3 m, width 15 m. Substrate boulders & mud. Surrounding vegetation, dumb cane and riparian forest. Open.
- (32) RUBBER CAMP, TRIBUTARY MACAL RIVER (CaD)
Map Ref: 16°52'00"N 88°58'00"W
Altitude: 400 m
Date(s): 16/19-II-1992
Description: Stream, Macal tributary, Fast moving. Depth 0.2 m, width 3 m. Substrate, stones & boulders. Surrounding vegetation, riparian forest. Shady.
- (33) SAN ESTEVAN (OWD)
Map Ref: 18°09'30"N 88°31'00"W
Altitude: 15 m
Date(s): 9-VI-1992
Description: River, New River. Slow moving. Depth > 5 m, width 15 m. Substrate mud. Surrounding vegetation, forest, occasionally cleared for sugar cane fields and buildings etc. Open.
- (34) SAN PABLO (OWD)
Map Ref: 18°12'00"N 88°33'30"W
Altitude: 15 m
Date(s): 30-IV-1992
Description: Ponds. Fresh water. Depth > 2 m, width 10 m. Substrate mud. Surrounding vegetation, reeds and grasses. Open.
- (35) SAN LORENZO (OWD)
Map Ref: 18°08'30"N 88°37'00"W
Altitude: 20 m
Date(s): 30-IV-1992
Description: Stream. Slow moving. Depth 0.4 m, width 1.0 to 3.0 m. Substrate, mud. Surrounding vegetation, forest. Dark shade. Note: The stream crosses under the road where the flow is restricted and the forest removed, and the Odonata found here were very different.
- (36) SARTENEJA (CoD)
Map Ref: 18°21'00"N 88°08'30"W
Altitude: < 5 m
Date(s): 2-XI-1992
Description: Secondary vegetation. Brack-
- ish water ponds in the area. Open.
- (37) SHIPSTERN NATURE RESERVE, H.O. (CoD)
Map Ref: 18°19'30"N 88°11'00"W
Altitude: 5 m
Date(s): 22-IX-1991/29-VII-1992
Description: Ponds. Fresh water. Depth varied through seasons, 0.1 to 1.0 m. Width, variable, 0.5 to 15 m. Substrate, mud. Little surrounding vegetation. Open.
- (38) SHIPSTERN NATURE RESERVE, MAIN TRAIL (CoD)
Map Ref: 18°18'00"N 88°12'00"W
Altitude: 5 m
Date(s): 22-IX-1991/29-VII-1992
Description: Forest, sub-tropical moist. Brackish water ponds in the area. Shady.
- (39) WAKAXCAI (CoD)
Map Ref: 18°16'00"N 88°18'00"W
Altitude: 10 m
Date(s): 13-XI-1991
Description: Lake. Water slightly salty. Depth 0.5 to 1.0 m. 200 by 400 m. Substrate, silt on rock. Surrounding vegetation, reeds. Open.

Species list

The classification follows BRIDGES (1991) and GARRISON (1992). — Annotations: † Collected by J.J. White, in Cowley collection, Natural History Museum, London; — # Species in PAULSON 1982 (for Belize); — * Species in PAULSON 1984.

Calopterygidae: # *Hetaerina cruentata* (Ramb.) 17, 21, 26, 29, 32; — †# *H. occisa* Hag.: 2, 8, 9, 10, 11, 12, 18, 19, 21, 26, 32; — †# *H. pilula* Calv.: 7, 8, 14, 19, 21, 26; — †# *H. titia* (Dru.): 1, 2, 5, 7, 8, 9, 10, 12, 18, 19, 20, 22, 24, 32, 35.

Lestidae: *Lestes henshawi* Calv.: 4, 35, 37; — *L. alacer* Hag.: 25; — *Lestes* sp. (DJ 374): 24, 25, 30.

Megapodagrionidae: *Heteragrion alienum* Willmsn: 5, 7, 8, 9, 11, 14, 15, 26, 32.

Pseudostigmatidae: †# *Mecistogaster modestus* Sel.: 4, 29, 30; — †# *Megaloprepus caerulata* (Dru.): 29, 30; — *Pseudostigma aberrans* Sel.: 6, 23; — † *P. accedens* Sel.: 1, 4, 38.

Platystictidae: *Palaemnema desiderata* Sel.: 12; — *P. paulitoyaca* Calv.: 29.

Protoneuridae: * *Neoneura amelia* Calv.: 7, 9, 10, 11, 19; - † *Protoneura aurantiaca* Sel.: 2, 7, 8, 9, 10, 11, 12, 19, 21, 32; - †* *P. corculum* Calv.: 27, 33; - *P. cupida* Calv.: 3, 7, 10, 11, 12, 26, 32; - † *Psaironeura remissa* (Calv.): 8, 16, 28.

Coenagrionidae: ** *Acanthagrion quadratum* Sel.: 5, 8, 12, 14, 20, 29, 30, 35; - *Argia frequentula* Calv.: 8, 9, 35; - # *A. pulla* Hag.: 8, 12, 15, 21, 27, 35, 36, 39; - ** *A. translata* Hag.: 2, 3, 5, 7, 8, 10, 12, 20, 22, 24, 26, 28, 31; - *Argia* spp. (more species to be determined); - † *Enallagma novaehispaniae* Calv.: 5, 8, 9, 10, 12, 20, 35; - *Enallagma* sp. (DJ 375); - †** *Ischnura capreola* (Hag.): 12, 32, 33, 34; - ** *I. ramburii* (Sel.): 10, 16, 22, 25, 33, 34, 38, 39; - † *Nehalennia minuta* (Sel.): 1, 25, 36, 38; - †** *Neoerythromma cultellatum* (Sel.): 5, 16, 22, 27, 28, 33, 38, 39; - * *Telebasis filiola* (Perty): 3, 6, 16; - *T. griffini* (Martin): 6, 34; - * *T. salvum* (Hag.): 4, 5, 25, 30, 32; - *Leptobasis vacillans* Hag.: 4, 5, 16, 30.

Aeshnidae: * *Aeshna psilus* Calv.: 4; - †* *Anax amazali* (Burm.): 37; - *A. longipes* Hag.: 25, 30, 37; - * *Coryphaeschna adnexa* (Hag.): 1, 22, 37, 38, 39; - ** *C. viriditas* Calv.: 6; - *Coryphaeschna* sp. (DJ 247); - *Gynacantha helenga* Wllmsn & Wllmsn: 4, 29, 37; - * *G. mexicana* Sel.: 37; - * *G. nervosa* Ramb.: 37; - *Hesperaeschna* sp. (DJ 663); - * *Triacanthagyna caribbea* Wllmsn: 6, 37; - * *T. septima* (Sel.): 2, 4, 8, 25, 37; - *T. trifida* (Ramb.): 3, 13, 37.

Gomphidae: † *Aphylla angustifolia* Garrison: 14; - *A. protracta* (Hag.): 33; - *Erpetogomphus ophibolus* Calv.: 10; - *Erpetogomphus* sp. (DJ 501): 12; - # *Phyllocyca speculatrix* Belle: 22; - *Phyllocyca* sp. (DJ 308): 2; - *Phyllocyca* sp. (DJ 477): 33; - *Phyllocyca* sp. (DJ 535): 14; - † *Phyllogomphoides duodentatus* Donnelly: 12.

Libellulidae: *Anatya guttata* (Erichson): 25; - †* *A. normalis* Calv.: 2, 13; - * *Brachymestia furcata* (Hag.): 28, 39; - *Brechmorhoga praecox* (Hag.): 10, 11, 12, 31, 32; - *B. nubecula* (Ramb.): 32; - ** *Cannaphila insularis* Kirby: 37, 38; - *C. vibex* (Hag.): 8, 12, 22, 35, 37; - †# *Dythemis multipunctata* Kirby: 5, 7, 9, 10, 12, 13, 29; - †** *D. sterilis* Hag.: 2, 3, 8, 10, 11, 18, 19, 20, 22, 26, 30, 31, 32, 33,

35; - † *Elasmothemis cunnacrioides* (Calv.): 2, 9, 10, 20; - *Elasmothemis* sp. (DJ 337): 24; - †* *Erythemis haematogastra* (Burm.): 10, 27, 28, 32, 38; - †** *E. plebeja* (Burm.): 1, 4, 12, 33, 35, 38; - ** *E. simplicicollis* (Say): 25, 37, 38, 39; - †* *E. vesiculosa* (Fab.): 4, 30, 36, 38; - * *Erythrodiplax berenice* (Dru.): 1, 36, 37, 38; - † *E. connata* (Burm.): 2, 4, 8, 10, 11, 12, 18, 25, 27, 30, 32, 35; - †** *E. fervida* (Erichson): 1, 2, 25, 26, 30, 38; - †** *E. umbrata* (L.): 1, 6, 8, 9, 11, 12, 13, 15, 21, 22, 25, 27, 32, 33, 36, 37, 38, 39; - *Idiataphe amazonica* (Kirby): 15, 28, 33, 39; - * *Libellula geigai* Gloyd: 4, 30; - †* *L. herculea* Karsch: 29; - †# *Macrothemis hemichlora* (Burm.): 2, 9, 20, 24, 32; - *M. inequiunguis* Calv.: 12, 24; - *M. musiva* Calv.: 32; - *M. pseudimitans* Calv.: 4, 10, 11, 25, 31, 32; - †* *Miathyria marcella* (Sel.): 27, 34; - *Microthyria atra* (Martin): 4, 13, 25, 29, 30; - †** *M. didyma* (Sel.): 6, 25, 30, 35, 37, 38; - *M. eximia* Kirby: 5, 10, 12, 16, 22, 27, 28, 33, 35, 37, 39; - *M. ocellata* Martin: 25, 30; - †** *Orthemis ferruginea* (Fab.): 4, 8, 10, 12, 17, 18, 25, 29, 37; - †** *O. levis* Calv.: 2, 3, 13, 29, 37; - †* *Pantala flavescens* (Fab.): 4, 8, 25, 36, 37, 38; - †* *Perithemis domitia* (Dru.): 4, 8, 11, 12, 28, 29, 30, 31, 37; - †* *P. mooma* Kirby: 15, 27, 33, 35; - *Planiplax phoenicura* Ris: 15, 27, 33; - *Rhodopygia hinei* Calv.: 24; - *Tauriphila australis* (Hag.): 12; - * *Tholymis citrina* Hag.: 37; - * *Tramea abdominalis* (Ramb.): 37; - †** *T. binotata* (Ramb.): 10, 37; - †** *T. calverti* Muttkowski: 8, 10, 22, 25, 37; - * *T. onusta* Hag.: 37; - # *Uraxis imbuta* (Burm.): 4, 8, 10, 13, 23, 30.

Discussion

Little has been published on the Odonata of Belize, and publications have been restricted to species lists for the whole country (PAULSON, 1982; CALVERT, 1901-1908). However, a number of private collections have been made in the country (e.g. Dr S.W. Dunkle, pers. comm.). J.J. White collected Odonata in the 1930's in the Toledo District of British Honduras around Punta Gorda, Columbia, the Rio Timesh and the Rio Grande. Of the 51 species deposited in the Cowley collection (Natural History Museum, London), 73% are in the above list (+). The remaining species are: *Hetaerina sempronina*, *Protoneura*

amatoria, *Staurophlebia reticulata*, *Dythemis velox*, *Macrothemis imitans*, *Micrathyria aequalis*, *M. debilis*, *M. dictynna*, *M. mingeri*, *Orthemis biolleyi*, *Pantala hymenaea* and *Uracis turrialba*. As the Toledo District was least represented in the sampling of my study, it may be that these and more species are still present.

PAULSON's 1982 list contains 44 species, 61% of which are recorded in the present study. The remaining 17 species are: *Hetaerina capitata*, *Archilestes grandis*, *Lestes tenuatus*, *Anomalagrion hastatum*, *Argia fissa*, *A. gaumeri*, *A. immunda*, *Argiallagma minutum*, *Enallagma praevarum*, *Progomphus clendoni*, *Brechmorhoga rapax*, *B. vivax*, *Erythrodiplax castanea*, *E. funerea*, *E. fusca*, *Micrathyria aequalis* and *Symptetrum corruptum*.

The northern part of Belize can be considered geographically as an extension of the Yucatan Peninsula, thus it seems likely that this area would have a similar species composition. Of 68 species recorded from the Yucatan Peninsula (PAULSON, 1984), 50% are present in this list for Belize. 69% (29) of the species in Paulson's list in Belize are recorded from Corozal District, the area in Belize most like the Mexican Yucatan.

All these lists of species show some similarity, but they also show enough discrepancy for further collection to add significantly to the Belize species list. Perhaps, more importantly, collecting can add to the growing habitat and seasonal information. No attempt has been made to explain further the geographical distribution of Odonata, as sampling effort has not been distributed evenly across all sites. Distinct seasonality in Belize con-

tributed to radical hydrological differences for many sites, and hence differing seasonal species compositions.

There exist a number of specimens, deposited in the Natural History Museum, London, which have not received positive identification (marked in the list by DJ numbers). Work on identification of these specimens is ongoing. The most striking aspect of the data is the potential for collecting work in Belize, an area that has been previously overlooked and understudied.

Acknowledgements — I thank TINEKE BOOMSMA and JAN MEERMAN for their assistance and companionship, BRUCE and CAROLYN MILLER for invitations to collect; E. GREEN of the Belize Forestry Department for permission to collect and DAVE THOMPSON and STEVE BROOKS for reading through this paper. Special thanks to Tineke and Steve for their long hours of identification work.

References — BRIDGES, C.A., 1991, *Catalogue of the family-group, genus-group and species-group names of the Odonata of the world*, Bridges, Urbana/IL; — CALVERT, P.P., 1901-1908, *Biologia cent.-am.* 50: 17-420, pls 2-10 excl.; — GARRISON, R.W., 1991, *Argia* 3(2): 1-30; — PAULSON, D.R., 1982, Odonata, in: S.H. Hurlbert & A. Villabos-Figueroa, [Eds], *Aquatic biota of Mexico, Central America and the West Indies*, pp. 249-277, San Diego St. Univ., San Diego, California; — 1984, *Notul. odonatol.* 2(3): 33-38.

Received September 6, 1993