

Insects of Guam—I

ODONATA

DRAGONFLIES OF GUAM

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The determinations in this paper are by F. X. Williams, and the collection notes are by O. H. Swezey.

ZYGOPTERA

FAMILY COENAGRIIDAE

SUBFAMILY COENAGRIINAE

1. ***Ischnura delicata*** (Hagen).

Agrion delicatum Hagen, Zool.-bot. Ges. Wien, Verh. 8: 479, 1858.

Ischnura delicata (Hagen) Selys, Acad. Belg., Bull. 2(41): 281, 1876.

Fraser, Fauna Brit. Ind., Odon. 1: 360, fig. 355, 1933.

Agana, May 4, Swezey, Usinger; Inarajan, May 7, 14, Swezey, Bryan; Piti, May 31, Swezey, Usinger; Sumay Road, June 25, July 15, Swezey; Piti, Aug. 24, Sept. 1, 21, Swezey; Merizo, Oct. 2, Swezey; Agat, Oct. 17, Swezey.

A widely distributed species throughout southern Asia, India, Ceylon, Burma, Malaysia, Sondaic Archipelago [Sunda Islands?], Borneo, New Guinea, Australasia, Philippines and Samoa. Now recorded from Guam for the first time. Abundant in lowlands, especially rice fields.

ANISOPTERA

FAMILY AESCHNIDAE

2. ***Anax piraticus*** Kennedy, Ent. Soc. Am., Ann. 27: 346, 1934.

Piti, dead specimen on bark of *Pithecolobium* tree, Root Agricultural School, Aug. 19, 1936, collected by a student; Piti, at light, Sept. 12, Swezey, Oct. 17, Swezey. A wary high-flying species difficult to capture.

Described from a male specimen collected in Guam by Fullaway in 1911. A male specimen collected in 1936 was submitted to Dr. Kennedy for verification. In reply, Dr. Kennedy stated that he had not seen the species *panybeus*

Hagen with which he had compared *piraticus* in his original description, and now he says: "My opinion after seeing this second specimen is that it will be difficult to separate all specimens from Guam from *panybeus* of Celebes. They may prove to be one species with study of more material."

3. **Anaciaeschna jaspidea** (Burmeister).

Aeschna jaspidea Burmeister, Handb. Ent. 2: 840, 1839.

Anaciaeschna jaspideus (Burmeister) Hagen, Zool.-bot. Ges. Wien, Verh. 17: 32, 1867.

Anaciaeschna jaspidea (Burmeister) Fraser, Ins. Samoa 7(1): 34, 1927; Fauna Brit. Ind., Odon. 3: 152, 1936.

Agana, May 9, Bryan; Piti, Oct. 12, Nov. 3, Swezey; 4 specimens at light.

The first record of its occurrence in Guam. A species with wide range from India, extending to the Pacific islands as far as Samoa.

FAMILY LIBELLULIDAE

4. **Hemicordulia** species.

Umatac, May 14, Usinger, 3 specimens; Piti, June, Usinger, 1 specimen.

5. **Agrionaptera insignis insignis** (Rambur).

Libellula insignis Rambur, Ins. Neurop., 123, 1842.

Agrionoptera insignis (Rambur) Brauer, Zool.-bot. Ges. Wien., Verh. 14: 164, 1864.

Agrionoptera insignis insignis (Rambur) Laidlaw, Fed. Malay States Mus., Jour. 16: 220, 1930. Fraser, Fauna Brit. Ind., Odon. 3: 274, figs. 83, 86c, 1936.

Orote Peninsula, April 9, Bryan; Yigo, April 13, Bryan; Mt. Alifan, April 20, 21, 30, Bryan; Agana, May 4, 25, Bryan, Swezey, Usinger; Inarajan, May 7, Swezey; Umatac, May 14, Usinger; Dededo, Aug. 11, Swezey.

Recorded for the first time from Guam, where it is quite common. This species ranges from Burma to Nicobar Islands, Sumatra, Java, Malaysia and Borneo.

6. **Diplacodes bipunctata** (Brauer).

Libellula bipunctata Brauer, Reise Novara, Neur., 86, 1866.

Diplacodes bipunctata (Brauer) Fraser, Ins. Samoa 7(1): 40, 1927.

Mt. Alifan, April 20, Bryan; Merizo, April 24, Bryan; Agana, May 4, Usinger; Inarajan, May 14, Swezey, Usinger; Umatac, May 14, Usinger; Piti, May 23, Usinger; Mt. Chachao, May 16, Sept. 22, Swezey; beach near Cetti Bay, May 29, Usinger; Piti, Aug. 16, Sept. 16, Oct. 10, 11, Swezey; Orote Peninsula, Sept. 27, Swezey; Merizo, Oct. 2, Swezey; Libugon, Nov. 10, Swezey.

Recorded for the first time from Guam, though collected by Fullaway in 1911 without record. This species is distributed throughout Australia and the Pacific islands as far as Samoa.

7. **Pantala flavescens** (Fabricius).

Libellula flavescens (Fabricius), Ent. Syst., Suppl., 285, 1798.

Pantala flavescens (Fabricius) Hagen, Neur. North Am., 142, 1861. Perkins, Fauna Haw. 2(2): 62, 1899. Fraser, Ins. Samoa 7(1): 41, 1927; Fauna Brit. Ind., Odon. 3: 414, fig. 115, 1936.

Umatac, May 14, Usinger; Piti, Aug. 16, 23, Sept. 4, 26, Oct. 8, 9, 25, Swezey; Orote peninsula, Sept. 27, Swezey.

A cosmopolitan dragonfly. It was collected in Guam by Fullaway in 1911, but not recorded. It is probably the most abundant dragonfly in Guam, and is the only Guam species which is also found in Hawaii.

8. **Tholymis tillarga** (Fabricius).

Libellula tillarga Fabricius, Syst. Ent., Suppl., 285, 1798.

Tholymis tillarga (Fabricius) Hagen, Stett. Ent. Zeitung 28: 220, 1867. Fraser, Ins. Samoa 7(1): 41, 1927; Fauna Brit. Ind., Odon. 3: 411, fig. 114, 1936.

Sumay road, May 31, Usinger; Piti, Sept. 16, Oct. 5, 10, Nov. 2 at light, Swezey.

A widely distributed species from tropical Africa, Madagascar, throughout India, Burma, Ceylon to Australia and Oceania. Now recorded from Guam for the first time, where it is not common.

9. **Rhyothemis phyllis phyllis** (Sulzer).

Libellula phyllis Sulzer, Abgekürzte Gesch. der Ins., 169, pl. 24, fig. 2, 1776.

Rhyothemis phyllis (Sulzer) Hagen, Stett. Ent. Zeitung 28: 232, 1867.

Rhyothemis phyllis phyllis (Sulzer) Fraser, Bombay Nat. Hist. Soc. Jour. 26: 931, fig. 52, 1920; Fauna Brit. Ind., Odon. 3: 421, 1936.

Agana swamp, May 4, Bryan, Usinger, May 25, Swezey; swamp 3 miles south of Piti, May 23, Usinger; Inarajan, June 8, Usinger.

This species occurs in Burma, Java, Sumatra, and Borneo. Now recorded for the first time in Guam, where it was found in swampy regions but not common.

10. **Rhyothemis variegata variegata** (Linnaeus).

Libellula variegata Linnaeus, Amoenitates Acad. 6: 412, 1763.

Rhyothemis variegata (Linnaeus) Hagen, Stett. Ent. Zeitung 28: 232, 1867.

Rhyothemis variegata variegata (Linnaeus) Ris, Cat. Col. Selys, 15: 931, 935, 936, 1913. Fraser, Fauna Brit. Ind., Odon. 3: 423, 1936.

Agana spring, April 6, 1 specimen, Bryan.

A species occurring in India, Ceylon, Burma and Malaysia. Now recorded for the first time in Guam.

11. ***Tramea limbata*** (Desjardins).

Libellula limbata Desjardins, Rapport Soc. Maurice, 1, 1832.

Tramea limbata (Desjardins) Kirby, Zool. Soc. Lond., Trans. 12: 318, 319, 1889. Fraser, Ins. Samoa 7(1): 41, 1927; Fauna Brit. Ind., Odon. 3: 436, fig. 119 a, 1936.

Orote Peninsula, April 9, Bryan, Sept. 27, Swezey; Sumay Road, May 23, Usinger, 5 specimens.

The range of this species is from Africa and Madagascar across southern Asia and the Sundaic Archipelago [Sunda Islands?] to Australia and Oceania. Now recorded for the first time in Guam.