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OCCURRENCE OF TWO TYPES OF GYNANDROMORPHISM IN A SIBLING SERIES OF *AEDES (STEGOMYIA) CRAGGI* (BARRAUD) (DIPTERA: CULICIDAE)[1]

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ABSTRACT. Anterior-posterior and bilateral gynanders of *Aedes* (*Stegomyia*) *craggi* (Barraud) were encountered in a sibling series of this species. The occurrence of two types of gynandromorphism within such a series of mosquitoes has not been previously reported. Reports of mosquito gynandromorphs subsequent to, or not included in the tabulation of Brust (1966) are summarized.

Two gynandromorphs of *Aedes* (*Stegomyia*) *craggi* (Barraud) were found among the *Stegomyia* mosquitoes submitted by the SEATO Medical Research Laboratory, Bangkok. Both specimens were reared from eggs obtained from a wild-caught female biting man in a forest at Chiang Mai, Thailand. It is noteworthy that these 2 gynandromorphs are of 2 distinct types known as an anterior-posterior gynander and a bilateral gynander. Accompanying these 2 gynanders are another 12 specimens (7 males, 5 females) which were derived from the same female (mother). These are normal siblings. As far as it can be determined, this is the first time that 2 types of gynandromorphism have been reported from the same sibling series. Craig and Hickey (1969:102) report 4 gynanders in one sibship of 16 individuals but do not indicate if 2 or more types were represented. The two gynanders are as follows:

(1). Anterior-posterior gynander, specimen No. (1)–2 with associated terminalia on slide (SEAMP 345, 73/302). This specimen has antennae, male; palpi, male; fore- and midtarsal claws unequal, male; hindtarsomere 4 with basal 5/6 white and tarsomeres 3, 5 dark, female; abdomen and genitalia, female, normal, all three spermathecae present.

(2). Bilateral gynander, specimen No. (1)–5 with associated terminalia on slide (SEAMP 345, 73/301). This specimen has right antenna, male; right palpus, male; right fore- and midtarsal claws unequal, male; right hindtarsomeres 3–5 dark, male; left antenna, female; left palpus, female; left fore- and midtarsal claws equal, female; left hindtarsomere 4 with

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basal 5/6 white and tarsomeres 3, 5 dark, female; genitalia, male, normal.

Brust (1966) gives a detailed review of gynandromorphism in mosquitoes and cites much of the literature. Since then a number of gynandromorphs have been reported. The information is generally scattered throughout the literature. At present, 34 species belonging to 10 genera have been described. Table 1 summarizes published records of gynandromorphs which were omitted from the tabulation in Brust (1966) or have been reported subsequently.

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TABLE 1. Gynandromorphs in mosquitoes (not tabulated in Brust, 1966).

Genus	Subgenus	Species	Reference
Aedes	(*Aedes*)	*cinereus* Meigen	Brust (1966)
	(*Aedimorphus*)	*dentatus* (Theobald)	Van Someren (1969)
		vexans (Meigen)	Minson (1969); Horsfall *et al.* (1973)
	(*Finlaya*)	*togoi* (Theobald)	Chellappah (1965)
	(*Ochlerotatus*)	*dorsalis* (Meigen)	Blakeslee, Rigby and Bomotti (1966)
		excrucians (Walker)	Brust (1966)
	(*Protomacleaya*)	*triseriatus* (Say)	Ezenwa and Venard (1973)
	(*Skusea*)	*pembaensis* Theobald	Paterson and Worth (1961)
	(*Stegomyia*)	*aegypti* (Linnaeus)	Craig and Hickey (1967)
		albopictus (Skuse)	Craig and Hickey (1967)
Armigeres	(*Armigeres*)	*giveni* Edwards	Colless (1958) [2]
Coquillettidia	(*Coquillettidia*)	*perturbans* (Walker)	Pinger (1972) [3]
Culex	(*Culex*)	*erythrothorax* Dyar	Blakeslee and Rigby (1965)
		nigripalpus Theobald	Meadows (1966); Taylor, Meadows and Branch (1966)
		quinquefasciatus Say	Meadows (1966); Seal (1966); Taylor, Meadows and Branch (1966)
		salinarius Coquillett	Meadows (1966); Taylor, Meadows and Branch (1966)
		tarsalis Coquillett	Harmston (1965, 1971); Rigby (1966); Taylor, Meadows and Branch (1966); Rosay (1968); Mitchell and Hughes (1969)
		tritaeniorhynchus Giles	Aslamkhan and Baker (1969)
	(*Culiciomyia*)	*cinereus* Theobald	Van Someren (1969)
Culiseta	(*Culiseta*)	*inornata* (Williston)	Benge (1970)
	(*Climacura*)	*novaezealandiae* Pillai	Dobrotworsky (1972)
Trichoprosopon	(*Trichoprosopon*)	*digitatum* (Rondani)	Lee (1967)

[2] This reference is not available. The information is from Chellappah (1965).

[3] Pinger (1972) reported it as an intersex. It is a gynandromorph (G. B. Craig, Jr., personal communication).

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