

Figure 2. Terminal abdominal sterna of male *H. vigintioctopunctata*. Arrows indicate undivided distinct sternal plate of eighth uromere.

Each mating lasted for 35 to 50 minutes. Pre-oviposition period ranged from 7 to 15 days. Impregnated female laid on an average 502 eggs during an ovipositional period of 40 days. Egg hatch ranged between 62 to 90%. One female exceptionally laid as many as 1108 eggs. Longevity of female was 43 to 85 days and of male 50 to 90 days. The female laid eggs in batches of 5 to 55 almost daily or on alternate days depending on the size of the cluster. Virgin females also laid eggs but at reduced rates and in this case single egg laying was common.

On removal of male after the mating, the female continued to oviposit but at an increased rate. On an average, during an ovipositional period of 26 days a female laid 305 eggs having 70.2% hatchability when the female was allowed to remain with male. But after removing the male, the average number of eggs laid increased to 368 with 65% hatchability. It is proposed that the reason for this increased oviposition may be due to the absence of male which may otherwise interfere in the oviposition during multiple matings.

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PROSTAGLANDIN $F_{2\alpha}$ INDUCTION OF OVULATION IN THE MUSK SHREW, *SUNCUS MURINUS* L.

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THE musk shrew which is a reflex ovulator readily ovulates following single injection of PMSG, HCG, LTH, LH or FSH¹. Prostaglandins have been shown to induce LH release and ovulation in certain mammalian species² and hence it was considered worthwhile to investigate the effect of prostaglandin $F_{2\alpha}$ ($PGF_{2\alpha}$) on ovulation in the musk shrew.

Nine adult wild-caught females weighing about 70 g were divided into three groups of three each. Animals in Groups I and II were given injections (i.p.) of $PGF_{2\alpha}$ (tromethane salt, Upjohn Co., Kalamazoo, Michigan), 1.5mg/female/day, for 1 and two days respectively. Animals in Group III which served as controls received injections (i.p.) of normal saline, 0.05 ml/female/day, for 1 day ($N=1$) and 2 days ($N=2$). Animals were killed 24 hr after the last injection. At autopsy the reproductive tracts were flushed with normal saline for the recovery of ova and the ovaries were carefully examined for the presence of newly formed everted corpora lutea^{1, 3}.

The results are presented in table 1. Ova were recovered from the genital tracts and newly formed everted corpora lutea were present in the ovaries of all females killed 24 hr after $PGF_{2\alpha}$ administration. Although ova were not seen in the genital tracts of females in Group II, newly formed everted corpora lutea were present in the ovaries suggesting recent ovulations. The failure to recover ova from these shrews is presumably due to the fact that the liberated eggs had already passed down the reproductive tract. In four of the six ovulated females more ova were shed from the left ovary than from the right (table 1). Moreover, in these animals the left ovary released at total of 13 eggs in contrast to the 6 by the right ovary suggesting a functional dominance of the left ovary in the musk shrew³ comparable to that reported in the white-toothed shrew⁴.

Induction of ovulation in the musk shrew by $PGF_{2\alpha}$ administration as revealed in this study is consistent with the reports in the mouse, guinea pig and hamster², cow⁵ and mare⁶. Since prostaglandins have been shown to induce LH release from the pituitary both *in vivo* and *in vitro*², it appears likely that the ovulations following $PGF_{2\alpha}$ administration are brought about

TABLE I
Ovulation induction by $PGF_2\alpha$ administration

Treatment	Proportion of ovulated females	Total number of ova*	Number of corpora lutea*	
			left ovary	right ovary
Group I: $PGF_2\alpha$, 1.5 mg/female/day, for 1 day	3/3	7 (3+2+2)	4 (2+1+1)	3 (1+1+1)
Group II: $PGF_2\alpha$, 1.5 mg/female/day, for 2 days	3/3	not seen	9 (3+2+4)	3 (1+0+2)
Group III: Normal saline**	0/3	0	0	0

*Numbers in parenthesis refer to the number of ova/corpora lutea in individual females.

**0.05 ml/day, for 1 day ($N = 1$) and 2 days ($N = 2$).

by LH release. Relevant to the present discussion are the reports that $PGF_2\alpha$ may act on the hypothalamus or higher centres to elicit LH release in the intact animal².

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NEW RECORD OF A GENUS OF A COLONIAL ASCIDIAN FROM INDIA

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THE present note deals with the genus, *Eudistoma* (Caullery, 1908) — a colonial ascidian. The genus is recorded for the first time in India.

The taxonomical position of *Eudistoma* is as follows:

Class: Ascidiacea; Order: Enterogona; Suborder: Aplousobranchiata; Family: Polycitoridae; Subfamily: Polycitorinae; Genus: *Eudistoma*.

Distoma and *Polycitor*¹ are considered to be synonyms of *Eudistoma*.

The following are the important generic characters of the genus:

Zooids almost completely embedded—3 rows of branchial stigmata—no parastigmatic transverse bars—no incubatory pouch projecting from the thorax—stomach is smooth—no common cloacal cavity in colony—atrial siphons open directly on surface of colony—no spicules.

The specimens (figure 1) were seen attached to the undersurface of stones in the littoral zone, in Tuticorin waters.

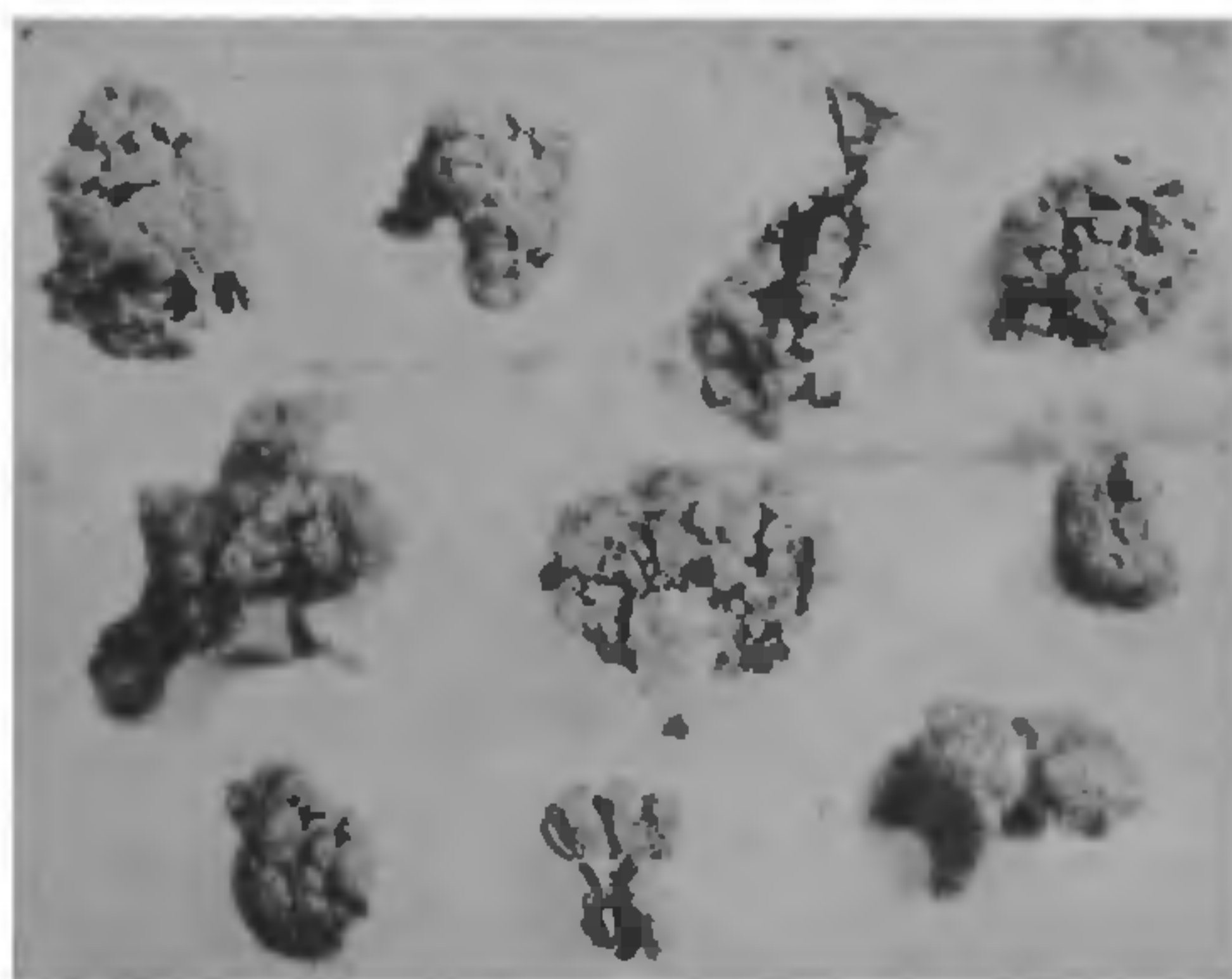


Figure 1. *Eudistoma* colony (Natural size)