TABLE 1
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 animal[2].

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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.

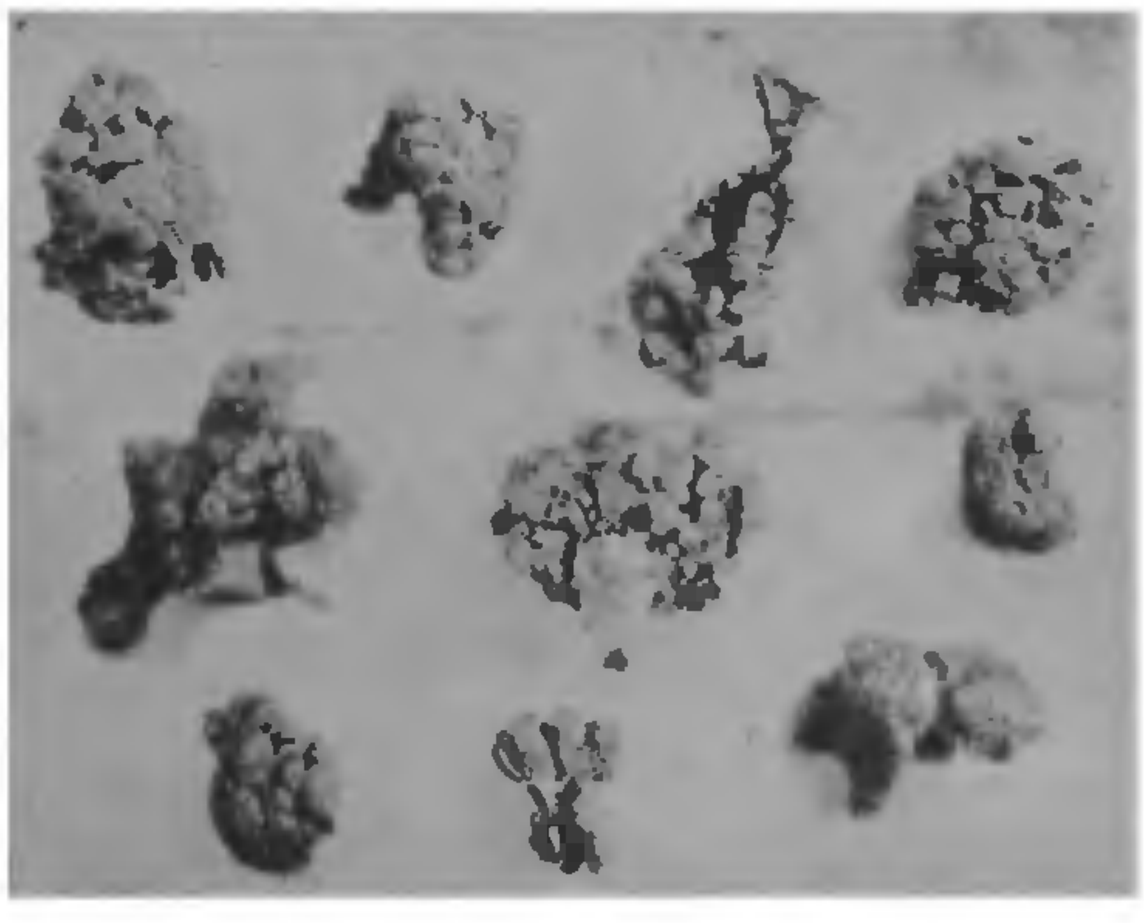

Figure 1. *Eudistoma* colony (Natural size)

The specimens were identified by two ascidian taxonomical experts, R. H. Millar of Dunstaffnage, Marine Research Laboratory, Oban, Argyll, Scotland and F. Monniot of Lab. Inv. Mar. Malacological Museum, Rue Buffon, Paris, to whom thanks are due.

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LOCALIZATION OF SOME ENZYMES INVOLVED IN STEROID METABOLISM IN THE OVIDUCT OF THE SKINK, *MABUYA CARINATA*

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THE oviducts of lizards are highly specialized organs which perform the vital functions of transport of eggs and investment of eggs with albumin, shell membrane and shell. It also retains the eggs for about 30 to 35 days (gestation) before oviposition. It is generally considered that the oviducts of lizards are under ovarian control[1-7], but thus far it has not been demonstrated as to whether the oviducts and their component glands are sites of steroid metabolism, if they are under ovarian steroidal control.

The oviducts of *Mabuya carinata* display distinct seasonal, morphological and histological changes in correlation with the seasonal ovarian cycle[7]. They also show seasonal variation in their secretory activity and exhibit sequential changes parallel with vitellogenesis, ovulation, oviposition and atresia in the ovary indicating that they are under ovarian control. An attempt is now made to localize some enzymes involved in steroid metabolism in the oviduct of *Mabuya carinata*.

Sexually mature skinks weighing about 20-25 g collected in Tirupati were used for this study. The animals were decapitated, the oviducts were removed and immediately frozen at −20° C. Air dried cryostat sections (16 μm) were incubated in serological water bath at 37° C for 1 hr in appropriate incubation media containing different substrates, co-factors and tetrazolium salt. Δ^5-3β-hydroxysteroid dehydrogenase (Δ^5-3β-HSDH) (substrates: pregnenolone and dehydroepiandrosterone) and 17β-hydroxysteroid dehydrogenase (17β-HSDH) (substrates: estradiol-17β, testosterone propionate) were localized according to the methods of Baillie *et al*[8]. Glucose-6-phosphate dehydrogenase (G-6-PDH) and reduced nicotinamide adenine dinucleotide ($NADH_2$) diaphorase were demonstrated[9,10]. Lipids: using Sudan Black B and Fettrot 7B, lactate dehydrogenase (LDH), malate dehydrogenase (MDH), succinate dehydrogenase (SDH), acid phosphatase and alkaline phosphatase were localized[11]. Suitable control sections were also incubated in incubation media without substrate. After incubation, sections were washed, fixed in 10% neutral formalin and mounted in glycerol jelly or PVP mounting medium.

The oviducts of lizards are complex organs consisting of three distinct regions: infundibulum, uterus and vagina. Only uterus region which is important from the functional point of view was used in the present study. It consists of uterine glands whose secretory activity shows correlation with the reproductive cycle. These uterine glands show intense reaction to Δ^5-3β-HSDH and 17β-HSDH with substrate specificity and preference to pregnenolone and estradiol 17β respectively (figures 1 & 2). G-6-PDH, $NADH_2$ diaphorase and LDH activities are also very intense in the uterine glands (figures 3 & 4). General and neutral lipids are stained intensively with Sudan Black B and fettrot 7B respectively in the uterine glands (figure 5). Acid phosphatase activity is faint (figure 6), and 11β-HSDH, MDH, SDH and alkaline phosphatase activities are nil in the glands.

Δ^5-3β-HSDH irreversibly convert Δ^5-3β-hydroxysteroids to Δ^4-3-ketosteroids[12], with an isomerase. 17β-HSDH brings about oxidative interconversions of various estrogenic and androgenic steroids[8]. G-6-PDH is a principal source for NADPH reactions in steroid metabolism[13]. Ubiquitous diaphorase is important as it is supposed to mediate electron transfer in the reduction of tetrazolium salt.

The presence of Δ^5-3β-HSDH, 17β-HSDH, G-6-PDH, $NADH_2$ diaphorase and lipids indicates that the oviducts in general and uterine glands in particular may be the sites of steroid metabolism and target for ovarian hormone control.

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