forskalii), whereas in the Gold Coast this strain of the parasite is rare or absent.

It is evident that the greatest care must be taken before any bulinid species can be removed from the list of vectors, and at Accra attempts are continuing to be made to infect *B.* (*P.*) *forskalii* with *S. haematobium* derived from many different districts, including that of Tongu. To date, however, there is no direct evidence that *B.* (*P.*) *forskalii* can transmit the parasites in the Gold Coast.

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Unilateral Hybridization

Species hybrids have been reported in *Petunia*[1] and *Lycopersicum*[2] which can only be made in one direction, namely, when the self-fertile species of the pair is used as female parent and the self-incompatible one as male[3]. This phenomenon, which may be called 'unilateral hybridization', also occurs with some species of *Antirrhinum*.

The *Antirrhinum* species have been classified[4] into four groups :

(1) Antirrhinastrum
(2) Orientalis
(3) Orontium
} $2x = 16$

(4) Asarina $2x = 18$

In the Antirrhinastrum group, which includes most of the species, all the species are either self-incompatible, or have a history of self-incompatibility. The second group, Orientalis, which is represented by *A. siculum*, and the third which only includes *A. orontium*, are both self-fertile. The fourth group, containing only *A. asarina*, is also self-fertile ; but this has a different chromosome number and has never been shown to hybridize with any other species. Six species from the Antirrhinastrum group have been crossed reciprocally with *A. siculum* and *A. orontium* and pollen tube growth observed.

From the results in Table 1, it will be seen that the pollen tubes of the self-fertile *A. orontium* and *A. siculum* species are greatly inhibited in the styles of the self-incompatible Antirrhinastrum species. By contrast, in the reciprocal crosses, when the self-fertile is the female parent, the pollen tubes grow right through the style and in two cases produce viable seed.

The flowers of *A. orontium* and *A. siculum* are much smaller than the self-incompatible species, and *A. orontium* is practically cleistogamous. *A. majus*, a species from the self-incompatible Antirrhinastrum group, needs special mention because intensive cultivation has selected self-fertile mutants with large flowers ; but the intrinsic self-incompatibility of both its style and pollen is apparent from the interspecific crosses. Its style rejects the pollen of the self-fertile *A. orontium*, and its pollen grows normally in all the self-incompatible species.

Table 1

♂	♀ *A. siculum*	♀ *A. orontium*	♂ *A. siculum*	♂ *A. orontium*	♀
Antirrhinastrum					
A. majus	⊕	+	−	−	*A. majus*
A. ramosissimum	+	+	−	−	*A. ramosissimum*
A. linkianum	+	+	−	−	*A. linkianum*
A. meonanthum	+	⊕	−	−	*A. meonanthum*
A. glutinosum	+	+	−	−	*A. glutinosum*
A. molle	+	+	−	−	*A. molle*
A. siculum	⊕	+	⊕	+	*A. siculum*
A. orontium	+	⊕	+	⊕	*A. orontium*

−, Pollen tubes greatly inhibited.
+, Pollen tubes grow through style.
⊕, Viable seed produced.

The *A. orontium* × *A. meonanthum* hybrid ($S_F \times S_I$) which in appearance is nearly identical with the mother parent, is sterile due to failure of chromosome-pairing at meiosis. S_I pollen from *A. meonanthum* can grow through the hybrid styles, but pollen from S_F *A. orontium* is inhibited. This is similar to the behaviour of the *Lycopersicum esculentum* × *L. peruvianum* hybrid[2]. In the *Antirrhinum* allotetraploid, chromosome pairing is restored and 16 bivalents are found ; but the plant is self-incompatible. The allotetraploid produces S_{FI} pollen and this is inhibited in S_{FFII} styles. This could be due to either the self-incompatibility alleles from *meonanthum* still functioning in the allotetraploid's genetic background, and/or the inhibition of *orontium*'s self-fertility allele by the self-incompatibility allele of *meonanthum*, both alleles being present in the pollen grains and styles of the allotetraploid.

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Reproductive Organs of Fœtal and Juvenile Elephant Seals

Between 1953 and 1955, I was serving with the Falkland Islands' Dependencies Survey in South Georgia and material was collected from the southern elephant seal, *Mirounga leonina*. Histological and histochemical examinations are being made of parts of the reproductive tracts and various endocrine organs from fœtal, juvenile and adult seals. Material fixed in acetone for fourteen months and kept within a few degrees of freezing point is still giving strong alkaline phosphatase reactions.

A hypertrophy of the gonads of the elephant seal occurs in fœtal life, similar to, but less marked than, that observed by Amoroso, Harrison, Matthews and Rowlands[1] and Harrison, Matthews and Roberts[2] in the common seal, *Phoca vitulina*, the grey seal *Halichoerus grypus* and various antarctic species.