portion of red muscle. Next come mackerel and herring, which also move rapidly in shoals. On the other hand, halibut, as a flat fish, has less and a paler red muscle. Further considerations along these lines give the same general relation between activity and the extension and pigmentation of the red muscle in different species.

A fuller account of this work will be published later.

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Production of Haploid Plants of Marrow-stem Kale

HAPLOID maize plants have been obtained in frequencies varying between 0.02 and 0.3 per cent by examining seedlings from plants, homozygous for recessive seedling-colour marker genes, which have been pollinated by plants homozygous for dominant marker genes¹. In marrow-stem kale (*Brassica oleracea* L. var. *acephala* D.C.), it has been found that non-hairy first leaf is recessive to hairy first leaf. Five plants, homozygous for the recessive gene, non-hairy, and obtained from inbreeding a single selection (plant 220), were pollinated in the bud stage by a single plant (31/11), which was homozygous for the dominant gene for hairy first leaf and which was also a first-generation inbred plant. As is shown in Table 1, a total of 2,674 seedling plants were examined and four non-hairy plants were found.

Table 1

Female parent	Male parent	No. seed sown	No. germ.	Per cent germ.	No. hairy	No. non-hairy	No. haploids
220/2	31/11	285	269	95	269	—	—
220/4	31/11	474	295	62	295	—	—
220/6	31/11	240	233	99	237	1	—
220/9	31/11	952	885	93	884	1	1
220/12	31/11	1,006	987	98	985	2	1
Total		2,957	2,674		2,670	4	2

When these four non-hairy plants came into flower, three had sterile pollen and two of these had much smaller flowers than normal diploid kale. Measurements of stomata showed that the two with small flowers also had relatively small stomata, 22 μ and 23 μ long, as compared with 28 μ long in normal diploid plants.

Cytological examination of pollen mother cells confirmed that the two plants were haploids with a chromosome number of $2n = 9$. A preliminary examination of fifty-four cells at first metaphase showed thirty-eight cells with no bivalents, twelve with one and four with two. The presence of these bivalents is interesting since it has been suggested from the occurrence of secondary pairing of bivalents that the true basic number in the genus *Brassica* is 6, and that in *B. oleracea* itself "three of the six basic chromosomes are present in duplicate, the other three but once each"². The bivalent frequency

would also appear to be higher than that in haploid *Brassica campestris* ($2n = 10$), where only occasional cells with one loosely paired bivalent were seen³.

The occurrence of the two non-hairy plants, which are not haploids, may be due either to accidental self-pollination, diploid egg cells of the female parent functioning without fertilization, spontaneous doubling of original haploid embryos, or mutations in the pollen of the male parent. It may be possible to show that the last hypothesis is the correct explanation by determination of the self-incompatibility allelomorphs present in the two diploid non-hairy plants.

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Epidiopatra hupferiana Augener from the North-East Pacific

THE little-known polychaete genus *Epidiopatra*, belonging to the family Eunicidae, was set up by Augener¹ in 1918 to contain two species, *E. hupferiana* and *E. drewinensis*, both collected off the west coast of Africa. No other species has since been added to the genus. The only subsequent record of either species is that of *E. hupferiana* from South Africa by Monro² in 1930. Both Augener's and Monro's specimens were dredged on muddy or sandy bottoms and, in Augener's case, mention is made of their inhabiting tubes.

Capture of a specimen of *E. hupferiana* in a plankton tow, from 100 ft. to surface, in Hecate Strait, British Columbia, seems worthy of record. It was taken by Mr. R. J. LeBrasseur, of this Station, in June 1955. The specimen is small (about 12 mm. long); but the characters are unmistakable. The generic characters are essentially those of the better-known Eunicid genus *Diopatra*, except that tentacular cirri are entirely absent and there is a very limited number of branchiferous segments. In all technical details the specimen agrees completely with Augener's and Monro's descriptions of *E. hupferiana*.

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Two Unifactorial Characters for which Man is Polymorphic

IT has been recognized for many years that humans excrete methanethiol (methyl mercaptan) after eating asparagus, and it has been assumed that this character is universal^{1,2}. We have found, however, that while some subjects excrete detectable amounts of methanethiol after ingesting only three or four sticks of asparagus, no significant amount of the compound appears in the urine of others after ingestion of as much as a pound of asparagus. Biochemical investigations of this metabolic difference are being made in collaboration with Dr. P. W. Kent. Nencki's³