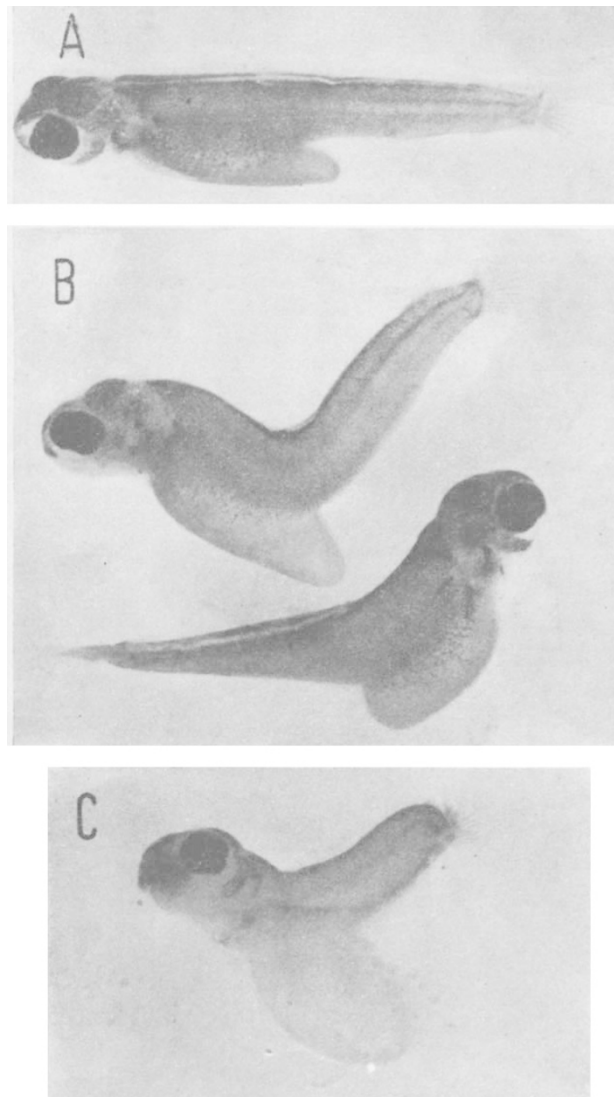


although work is still at an early stage. Plaice  $\times$  dab hybridization has been unsuccessful so far, although in some cases the hybrids survived beyond the larval stage. On the other hand, crosses between plaice and flounder thrived admirably, sometimes growing twice as fast as pure-bred plaice. Trying to get round the generation time of up to three years has led also to experiments in gynogenesis with the aim of breeding pure lines of fish faster. Eggs are fertilized with spermatozoa that have been genetically deactivated by  $^{60}\text{Co}$   $\gamma$ -radiation, so that only the female genetic material is used. The resulting embryos are, however, often abnormal (see comparisons in the photographs).



Comparison of normal and abnormal trout embryos: A, normal diploid trout alevin; B, gynogenetic diploid trout alevin (near normal); C, gynogenetic haploid trout alevin (abnormal).

Possible foods for farmed fish include a worm called *Lumbricillus* which frequents rotting seaweed and is apparently so good for the fish that scientists of the Port Erin marine hatchery are trying to cultivate it. The worm grows just as well in horticultural peat as in seaweed humus, and its diet can be supplemented with artificial pre-digested meal. Environmental studies of young fish reared at the Lowestoft laboratories are

gradually building up a more comprehensive picture of the most suitable conditions for larvae to mature in. Their capacity for surviving temperature changes of the order that might be expected from a sharp frost is unexpectedly high, but a reduction of the dissolved oxygen content of water below 65 per cent of the saturation value is likely to cause deaths. Oxygen saturation is usually maintained during fish cultivation by pumping fresh seawater through the tanks, but it may be that the expenses of pumping could now be reduced by lowering the concentration—75 per cent seems to be safe at the moment.

The ministry's work on marine pollution has grown since the report was prepared: after this year's seabird disaster, routine monitoring of marine life has included tests for polychlorinated biphenyls as well as organochlorines and heavy metals. New staff will be looking at sea fish, shellfish and plankton for evidence of how biphenyls get into the food chain. In 1968 there were also investigations of human illness associated with sea food, such as the paralytic shellfish poisoning caused by dinoflagellates in Northumberland (see, for example, *Nature*, 220, 21; 1968). Oysters from the River Lynher in Cornwall have from time to time caused gastroenteritis, and have proved a more persistent problem.

1968 saw an expansion of research facilities. A dance hall at Lowestoft was converted into laboratories, workshops and offices, and a new ship (*Nucella*) was launched in February to operate from Burnham-on-Crouch in Essex in connexion with shellfish and inshore research. Academically, a relationship has developed with the University of East Anglia—two of the staff were awarded PhDs—and increasing international cooperation is clear from a long list of staff who worked or attended conferences abroad.

#### BUILDINGS

### New Block for Imperial College

THE new College Block at Imperial College of Science and Technology was officially opened last week. It houses a large hall with seating for 800 people, two lecture theatres, a library, the new department of the



Imperial College.

History of Science and Technology, administrative offices and social and refectory services for both staff and students. The building is situated in the centre of the main site in Kensington. It was designed by Norman and Dawbarn and its total cost was about £3 million.