



LIKE SHARKS IN THE SEA

These low-wing airplanes, lacking gas-bags to serve as swim-bladders, must depend on their fore and after "fins" to support as well as to balance and steer them.

ermost pair as well) develop to an exaggerated size, but are kept folded back as the fish darts through the water and out into the air. Then they are spread out, and actually function as gliding wings, on which the fish can sail for scores or even hundreds of feet.

Mr. Harris concluded his study of the engineering efficiency of the body designs worked out by fishes for themselves, with a look at their tails. The more primitive or less active a fish, the blunter its tail-lobes, he found, and also the thicker the "stem" between the body and the flare of the tail. Thus, the notvery-speedy cod has a conservatively blunt-flared tail, while the highly efficient swimmers of the mackerel tribe (which includes the long-finned albacore—the "tuna" of the fisheries) have deeply notched, widely flaring tail lobes, narrow and curved sickle-fashion, in just the shape that airplanes would be built if it were structurally feasible. On the albacore at least this same sickle-shape repeats itself in the wide-reaching pectoral fins. And in all the mackerel clan, the tail is on a slim, elegant, tapered "stem," permitting the body to come down to a most efficient end-point of its streamline design.

The illustration on the cover of this week's SCIENCE NEWS LETTER shows fish that have developed their fins to the point where they can, at need, become "tandem gliders" in the air, fleeing from dolphins, which are highly efficient swimmers—probably the fastest of

all water-creatures. The artist, Wilfrid S. Bronson, visions this drama from the under-water, "fish's eye" point of view. The painting is in the Buffalo Museum of Science.

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PSYCHIATRY

Glands and Homes Blamed For Problem Children

GLANDS and chaotic homes were variously blamed for bad behavior of children, in the discussion of the American Orthopsychiatric Association.

Disorders ranging from speech defects, mental retardation and truancy to stealing and sex delinquency were traced to glandular disorder in 93 out of the first thousand children studied at the Cincinnati Child Guidance Home, Dr. Louis A. Lurie said. Glands may so importantly affect the personality and behavior of the child that a thorough examination of the endocrine or ductless glands should be made in the case of every child whose behavior makes him a problem, Dr. Lurie believes. Many of the children he studied were helped by treatment with gland extracts.

Physical causes, contrary to general belief, are not what make children overactive to the point of abnormality,

Dr. Asher T. Childers, psychiatrist at the Central Clinic in Cincinnati, insisted. When a child like eight-year-old Mary C., of normal intelligence, cannot pay attention long enough to get her lessons, is constantly moving about the schoolroom, talks too much and too loudly, is boastful and always seeking attention, the home life is at fault, Dr. Childers found.

Mary and children like her suffer from an unconscious feeling of insecurity and of not belonging permanently to a family, a school or a neighborhood. Living first with one set of relatives and then with another, staying up too late, eating irregularly, going to too many movies, getting no regular training in behavior and self-control are the factors that make dangerously over-active children like Mary. The danger is that when these children grow older, their over-activity takes the form of stealing and truancy among boys and sex misconduct among girls.

The remedy, Dr. Childers discovered, is to have these children live in institutions. The regularity of the life and the interesting as well as inhibiting nature of an institutional program will help them more than anything else.

If Johnny is going to have serious difficulty in learning to read, it can be foretold before he enters the first grade. Eight signs by which the prediction can be made were presented by Dr. Burton M. Castner of Yale University.

The signs include tendency to or family history of lefthandedness, weakness in drawing, inattentiveness, and excitable personality. Not all eight are likely to be found in any one child, and no one of these signs alone is enough basis for predicting that the child will have trouble in learning to read. But a significant combination of them shows that the child in question should be watched so that he can be given special help with his reading troubles before they get so bad that his discouragement over them will distort his personality and make him a behavior problem.

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