

ICHTHYOLOGY

## British Salmon Migrate 2,000 Miles to Near Arctic

► BRITISH-TAGGED salmon have been recaptured 2,000 miles from home, as far away as Greenland and the Arctic Circle.

Very long distance migrations are more common than was earlier supposed, according to Dr. A. Swain and W. G. Hartley of the Freshwater Fisheries Laboratory in Whitehall Place, London, and Dr. R. B. Davies of the Central Electricity Generating Board in Cardiff.

"Whether fish that have traveled so far would normally return to their native rivers to spawn is, of course, still unknown," they reported in the British journal *Nature*, 195:1122.

Particularly interesting, they point out, is the recapture of a salmon in October, 1961, near Kangamiut, a small settlement just outside the Arctic Circle. It was tagged as a smolt after entering the cooling water system of the Uskmouth Generating Station near Newport, England.

In 1956 a salmon tagged in Scotland was recaptured in Eqaug Fjord, on the west coast of Greenland. A salmon tagged as a smolt in the estuary of the Miramichi River, New Brunswick, Canada, in 1960 was recaptured on the southwest coast of Greenland and more recently another Canadian salmon was captured in the same area.

These tagging operations show that salmon from both sides of the Atlantic can appear together in the coastal waters of Greenland at some stage during their marine life.

Salmon normally spend half their lives in the ocean and the other half swimming up the fresh rivers to spawn.

• Science News Letter, 83:15 January 5, 1963

BOTANY

## Tiniest and Largest Zinnias Win Awards

See Front Cover

► THUMBELINA, A TINY zinnia—the smallest of dwarf zinnias ever cultivated—has won the Gold Medal award of All-America selections. It was the first Gold Medal award since 1950 when the Fire Chief petunia won, as the first red petunia.

Only about six inches in height, the compact everblooming zinnias continue to bloom over a long season. Thumbelina is ideal for edging beds, borders and walks or driveways, and arrangements in shallow bowls or trays are said to be conversation pieces.

The All-America Silver Medal went to Firecracker, a zinnia that produces large flowers of bright and rich scarlet red. These plants grow to 30 inches tall with long-stemmed, giant cactus-flowered blooms six inches across and two inches deep. Firecracker is the first true hybrid zinnia winner.

Among roses, a panel of 10,000 home gardeners has named Tropicana, the new hybrid tea rose, 1963 Rose of the Year. A brilliant orange-red hybrid tea, it has won an impressive list of 13 other top awards in nine different countries, including the title of All-America Rose of 1963. A cross between a Peace seedling and an Alpine Glow

seedling, it performs well in both garden and greenhouse. The rose is seen on this week's front cover.

All-America Selections for 1963 offer five new home garden vegetables: Buttercrunch lettuce, Emerald Cross cabbage, Hercules winter squash, Greyzini summer squash and Executive snapbean. All-America Selections is a non-profit institution for testing and rating of flowers and vegetables.

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PHYSICS

## Counterclockwise Swirls In Bath Hard to Prove

► YOU CANNOT really try this on your bathtub or kitchen sink. But the vortex or twisting around of water going down the drain under well-controlled conditions is counterclockwise looking downward. That is, it is if you are in the Northern Hemisphere. For the Southern Hemisphere, one will always see a clockwise vortex.

But this is only true if the experimental conditions are very carefully controlled and the so-called Coriolis forces set up by the rotation of the earth are not disturbed and overridden by the swirls of filling the tube and pulling the plug.

Prof. Ascher H. Shapiro of the Massachusetts Institute of Technology performed the experiment for an educational motion picture. He computed that the Coriolis force at latitude 42 degrees is only thirty-millionths that of gravity, which is so small that it will be overcome by filling and even temperature differences and water impurities.

Reporting in *Nature*, 196:1080, Prof. Shapiro offers to share his precise experiment with anyone who wishes to try it below the equator. There is no purpose in trying it at the equator, for these earth forces vanish there. He is very skeptical about those who have claimed to have seen the direction of swirl change as a ship crosses the equator.

• Science News Letter, 83:15 January 5, 1963

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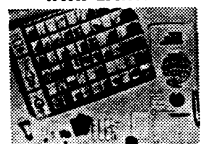
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