



### Caveat Captor

► FISH caught in South Sea waters, whether for sport or by necessitous airmen or seamen adrift on life rafts, are not always safe, warns a new publication of the Australian Council for Scientific and Industrial Research, prepared by G. P. Whitley, F. R. Z. S. A number of species are definitely poisonous and must never be eaten, several other kinds have venomous stings or barbs, and a few, notably sharks, sea eels and a close relative of our barracuda, viciously attack men in the water.

Some of the poisonous-fleshed species are not likely to be eaten except under near-starvation conditions. One group, the box fishes, have hard armor over their heads and fore parts of their bodies—and very little flesh inside once this tough case is cracked. Two other groups, the puffers and porcupine fishes, have a habit of blowing themselves up with air until they resemble small balloons with fins and tails; the puffers are known in Australia by the suggestive name of “toadoes.”

However, there are several species that are very attractive in appearance and might well be cooked and eaten by incautious strangers. There is one known as the red bass, for example, that is as handsome a fish as an angler ever fished in. Burgundy red underneath, sooty on its back, with a yellow area back of the mouth and over the gill-covers. Then there is the Chinaman fish, which besides being fine to look at puts up a game fight when hooked. One of the difficult things about these two fishes is that they can be eaten by some persons with impunity but are poisonous to others.

One of the oddest cases is that of the goatfish or red mullet, a fish of very

wide distribution. Of it, Mr. Whitley says, “The flesh is edible, indeed delicious, and provided feasts for epicures in Roman times, but it has been found in Hawaii that eating the brain is followed by delirium and mental paralysis.”

No fish is known to be able to inflict a venomous bite, but there are plenty armed with external spines or barbs, that apparently secrete poisons to make the wounds they inflict much more serious. Among these are sting-rays, catfishes, scorpion fishes and a number of others. There are also a few species, such as the aptly-named surgeon fish, that have razor-sharp little blades near their tails, which they can thrust forward when struggling against capture, and inflict severe, though unpoisoned, jabs and slashes.

*Science News Letter, July 24, 1943*

### CHEMISTRY

## Coffee Freshness Depends On Sealing Oxygen Out

► FRESH COFFEE flavor depends on shutting moisture and air out of the package rather than sealing aroma in, state A. Cornwell Shuman and Lucius W. Elder, Jr., of General Foods Corporation (*Industrial and Engineering Chemistry*, July).

In a series of experiments, the aroma of freshly ground coffee was swept away continuously by a stream of nitrogen gas. After nearly eight weeks of such treat-

ment, expert tasters pronounced the flavor unimpaired. Hence, no flavor can escape into the air space of a sealed container while it is sitting on the grocer's shelf, the scientists conclude.

Next the experimenters shot a stream of moist gas through the coffee for about seven weeks. Results were nearly the same: only a slight staleness developed and that during the first seven to nine days of treatment. Moisture without the continuous breeze brought on staleness more rapidly.

Oxygen of the air was confirmed as being the real villain of the piece. Small amounts of oxygen and water sealed into the package with the coffee made the coffee stale most quickly.

From the experiments may well come a method for salvaging stale coffee—no small feat in these days of limited supplies. Coffee exposed to oxygen for nearly three weeks was brought back to comparative freshness by sweeping inert gas through the coffee for a week. At least part of stale flavor must be due to compounds which can be evaporated off, the researchers report. But after the coffee was 32 days old, oxidation had gone so far that the gas treatment caused no improvement.

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*Rabies* has been eliminated or kept out of Great Britain, Sweden, Switzerland, Australia and Hawaii; the United States has some 9,000 cases a year, mostly in dogs, which could be prevented by proper measures.

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