



No One Medicine

FLOOD waters, bounding down the deforested slopes of the upper Ohio watersheds, gathering into national disaster in the gorged river-troughs downstream, have again germinated their crop of insistent demand for reforestation and regressing of the hills, from whence hath come not help but ruin. Get them all under permanent vegetation again, build little dams to hold the little waters upstream, and there will be no more great floods, declare many confident conservation-boosters.

Such prophecy may be over-bold, and in the end do the cause of conservation more harm than good. Great floods, like all great maladies, arise from a complex of causes and no one medicine is likely to be their only necessary cure. To some degree at least, endurance or avoidance may be the only practicable remedies.

For be it remembered that there were great floods in the rivers before ever the forests were stripped away from the hills. Floods on the Ohio are well recorded from early post-Revolutionary days, when clearing had not yet made any great impression on the primeval forest. And no reader of early American history is likely to forget the heroic march of George Rogers Clark's men, up to their armpits in icy

water, when they went to the surprise of the British garrison at Fort Vincennes and the conquest of the Northwest for the new nation.

Whatever we may do toward the mitigation of floods, therefore, we may as well expect that floods will still come. It is only decent (and available for the salvation of our self-respect) to suppose that human efforts really can mitigate them—prevent some altogether, perhaps, and at least diminish the volume and violence of others. But when we run into the situation that obtains at present, with rains continuing relentlessly to fall on soaked soil, with no more chance of sinking in than they would have on a tin roof, then obviously there must be runoff and river-rise.

What to do about it? Well, first, it would seem only elementary discretion to keep costly economic works away from flood-subject bottom lands, even though a disastrous one may come but once a generation. Then, if venturing into the chancy areas nevertheless looks profitable, it might be better to do so on a basis that will permit a quick get-away if River won't stay away from your door.

Finally, though trees and grass may not be able to prevent all the water from rolling off the hills, in the right places they can prevent the best soil of the hills from rolling off with the water. So go ahead and plant!

Science News Letter, February 6, 1937

ORNITHOLOGY

Studies Last Meals Of Long-Dead Pigeons

PASSENGER pigeons, once among the most abundant of American birds, have been an extinct species for years; yet what some of them ate for their last meals is accurately known. Miss Phoebe Knappen of the U. S. Biological Survey, a young woman born many years after the last wild passenger pigeon died, has studied the food habits of this now almost legendary bird.

The paradox of meals being still in existence though the birds that ate them have been dead for decades is explained by a study-method long used by the Biological Survey. When a bird of scientific interest is killed, the collector saves not only the skin, and sometimes the skeleton, but also the contents of its crop and gizzard.

Kept in bottles of preservative fluid, these last meals are carried to headquarters and there examined by specialists, to identify the kinds of insects, weed seeds, etc., on which the bird has

been feeding. This enables scientists to form an estimate of its usefulness (or otherwise) in relation to man and his crops and orchards.

Some of these preserved stomach-contents have been kept for many years. Among them Miss Knappen found the contents of eleven passenger pigeon stomachs, from four well-separated states. She made a careful examination of all of them.

Passenger pigeons, it developed, were predominantly vegetarians. A little over nine-tenths of the items found in the bottles belonged to the vegetable kingdom; just under one-tenth was of animal origin.

The largest single item was acorns. This accords well with a passage in Longfellow's "Evangeline," in which great clouds of the birds are described: "Darkening the sky in their flight, with naught in their craws but an acorn."

Second in importance, as passenger-pigeon food, were oak-galls, those curious swellings produced in leaves by the sting of a tiny, wasp-like insect. The fruits of the pokeberry, a common weed, with grains of wheat, ranked next.

The very great importance of acorns and oak-galls in the passenger-pigeon diet helps to explain how the birds vanished as the primeval forests of eastern North America were cleared. Not alone the guns of the hunters, but also the axes of the woodsmen, sent them on their last, unreturning journey.

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A new type of rail joint, invented by a Dutch engineer, is claimed to do away with shock or impact when pressure passes over it.

Surveying the state of Kentucky, archaeologists have in recent years recorded 688 Indian mounds, 162 ancient village sites, 170 cemeteries, 108 rock shelters, and 57 caves.

● RADIO

Feb. 9, 5:15 p.m., E.S.T.

FISH AS PETS—Fred Orsinger of the U. S. Bureau of Fisheries.

Feb. 16, 5:15 p.m., E.S.T.

NEW NAMES FOR OLD PLACES—S. W. Boggs, Department of State.

In the Science Service series of radio discussions led by Watson Davis, Director, over the Columbia Broadcasting System.

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