



Indigo Bunting

➤ IF YOU are walking along the edge of the woods, or across brushy pasture, and see a flash of blue winging through the air, look twice before you decide that it is a bluebird. It may be that somewhat less abundant but equally beautiful bird, the indigo bunting.

There is no danger of confusing the two birds, if you can get a fair look at the indigo bunting. The indigo bunting has no red underneath, as the bluebird has, but is blue on both breast and back. The only feathers he has that are not blue are the large dark ones of his wings and tail, and even these are blue edged. This is his summer garb; in winter, he has a general sparrow-like appearance.

His mate keeps her sleek but inconspicuous brown dress the year round. She has not a single distinctive feature to allow instant identification, and in coloring she most resembles a plain little brown striped sparrow.

The song of the indigo bunting is a beautiful, sustained trill, not unlike that of a canary. Indeed, one of the less familiar names for this bird is blue canary. The bunting is very fond of singing, too, and will frequently stage a recital in midsummer, long after most other birds have become silent.

The persistence of his sweet, simple song

when other birds are quietly seeking relief from the heat is one of the surprises of this bird. Many and many a highway can be traversed in the heat of day without hearing one bird utter even a short note, except the indigo bunting.

Indigo buntings are not as well known, perhaps as bluebirds, even though they are often mistaken for them. This is because they are rather more shy of humankind and prefer to live in the tangled thickets and broken woodlands, remote from habitations. But for the nature lover they are worth patient seeking, for they have few peers and no superiors in beauty among our native birds.

There is a jewel-like brightness about their deep blue feathers that surpasses the bluebird's blue.

Science News Letter, May 14, 1955

TECHNOLOGY

Fresh Water From Saline

➤ ENERGY, HARNESSSED from the sun and the atom, may some day convert salt water into fresh water. But it is now too expensive.

This was the opinion expressed by Shepard T. Powell, Baltimore, Md., engineer, an adviser to the government's Saline Water Conversion Program, before the International Arid Lands Meetings in Albuquerque, N. M.

"Inquisitive search for usable fresh water over the years," he said, "has resulted in many workable processes for desalting saline waters."

But, he cautioned, although research has brought into sight "the goal of producing fresh water at a cost which consumers can pay," it remains "at present unrealistic for the continental United States."

Chiding the non-technical press in the United States for being "overly optimistic in dramatizing the developments in the conversion of saline water," Mr. Powell said that to many people, especially in this country, changing salt water to fresh water is an Aladdin's lamp.

"This optimism has led many to believe that there will soon be ample quantities of fresh water, produced at a cost comparable to that of natural fresh water supplies."

Looking to the future, Mr. Powell listed some of the new methods being tried by scientists.

One distills salt water by rapid-boiling it in a vacuum. Another is electro-ion migration, likened to electroplating. In this process, molecular fragments of the dissolved salts are electrically extracted through thin membranes. Synthetic membranes now being tested may put this process into a fair price range.

"The crux of realistic accomplishment in demineralization of saline water anywhere rests wholly on permissible cost," Mr. Powell said. Inexpensive power is needed. Nuclear reactors, low-grade fuel, off-peak or dump

ENGINEERING

"Brain" Helps Design Electric Motors

➤ DESIGNERS OF electric motors have a new trouble-shooter—an electronic "brain" that can analyze the motor's interior forces.

The device works on all size motors, and when used on larger machines it gives data that are not often possible or are very costly to obtain.

The brain promises to reveal information about motors that have been predicted by calculation but could not be confirmed by tests, J. M. Shulman and H. W. Hansen of Westinghouse Electric Corporation told a meeting of the American Institute of Electrical Engineers in Columbus, Ohio.

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power at cheaper rates or solar stills which harness the sun's ray all may be possible answers.

The government adviser credited the increase in effort, to find the answers needed urgently in the arid and semi-arid areas that cover a third of the earth's land surface, to the work of the Saline Water Conversion Program in the United States and to the world-wide pooling of knowledge on the problem organized and planned by Unesco.

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The cassowary, a bird found in New Guinea and Australia, weighs up to 90 pounds.

Questions

CHEMISTRY—The pungent gas noticed when you strike a match has been used to dissolve what substance? p. 315.

MEDICINE—What are two possible reasons for the recent attacks of polio after vaccination? p. 310.

METEOROLOGY—How is it suggested that man induce rain by the reverse of cloud seeding? p. 319.

PHYSICS—What is the half-life of the newly discovered element 101? p. 307.

PSYCHOLOGY—What is the new theory to explain why some homes are unhappy or broken? p. 316.

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