

FOSSIL BIRDS.—Professor Marsh, of Yale College, records the discovery of a large fossil bird, at least six feet in length, in the upper cretaceous of Western Kansas.

There is a special importance attaching to the birds of the cretaceous formation in this region, as some of them have done much to fill up the gap in the series between reptiles and birds. One of these birds, a species of *Ichthyornis*, had well-developed teeth in both jaws, and bi-concave vertebræ—the latter being a characteristic of fishes and of a few extinct reptiles. The bird was about as large as a pigeon. Another interesting bird of that age discovered by Prof. Marsh, was a species of *Hesperornis*, a gigantic diver, related to the modern loon, but about six feet in height. Some smaller birds from this formation were allied to modern cormorants.

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### CAN A BIRD REASON?

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Of the seven kinds of the swallow family inhabiting North America, all but one are known to have undergone a more or less complete and radical change of life, seeking the protection and companionship of man, and making great and important changes in their nesting, both as to location and architectural structure.

These evidences of reasoning power in birds are by no means confined to the swallow family. We see its manifestations in the change of life and habits of even the proverbially not over-intelligent gull, which at Grand Manan, taught by generations of persecutions, and robbed of its eggs with ruthless greed by man, no longer rests on the treacherous shore, but with its clumsy webbed feet builds itself a nest in high and inaccessible forest trees. We see it, too, in that intense caution, miscalled cunning, with which that poor persecuted benefactor of the farmer, the crow, is compelled to guard his hunted life. This caution has been taught him by the severe lessons of experience, and by his own powers of reason. It is foreign to the crow's