

and two of the Oriole in other trees. One Towhee also had its nest in an ivy on the front porch. She was very shy, and even when the eggs were hatching, would leave the nest as we passed in and out of the house.

Several Mockingbirds began nests and three broods were raised during the season by various pairs of this bird. A Sonora Yellow Warbler occupied the top of the tallest tree and a Plumbeous Gnatcatcher partially completed its nest in an umbrella tree. Black-throated Sparrows were always present but built their nests in the scrubby greasewood and catclaw just outside the fence, where I found several nests with eggs or young birds. A Say Phoebe spent most of her time there catching insects for her nestful in an adobe wall across the street. A couple of pairs of Cactus Wrens filled thick bunches of twigs in one of the trees with their baskets of hay, and quarreled with each other and the kingbirds. Several old oriole nests were occupied by the House Finches.

To sum up, there were on this small space, 120 by 150 feet, six or more pairs of House Finches, three of the Mockingbird, four Arizona Hooded Oriole, one Bullock Oriole, one Vermilion Flycatcher, one Costa Hummer, seven Canyon Towhee (with seven occupied nests at one time), two Cactus Wren, one Baird Woodpecker, two Cassin Kingbird—a total of twenty-eight pairs all of which raised one or more broods of young.

*Tombstone, Arizona.*

## THE NEW RESERVES ON THE WASHINGTON COAST <sup>a</sup>

By WILLIAM LEON DAWSON

SOME surprise has been expressed at the recent creation by Executive order of four bird and animal preserves off our Northwestern coast. It was a case, in fact, in which the Audubon Societies, supported by the Federal authorities, were able to act before extensive damage had been done (by the white man at least) instead of decades after—as has been the rule because of the "times of ignorance." Messrs. Finley and Bohlman had ably exploited the interests of the Three Arch Rocks, now formed into a reserve of the same name off the coast of Oregon; but it was not generally known, except to officials and inattentive settlers, that extensive colonies of nesting sea-birds existed along the ocean coast of Washington.

In July, 1906, the writer, accompanied by wife and child, undertook a canoe trip along this coast with a view to determining the ornithological resources of the major rocks and islands, some one hundred and thirty in number, which lie scattered along the coast between Moclips, the terminus of a recently completed Northern Pacific spur, and Cape Flattery, at the entrance of the Straits of Juan de Fuca. The weather was unusually propitious and we were able to reconnoiter practically all of the islets and to visit the more important ones. Early in June of the present year, accompanied by Professor Lynds Jones of Oberlin, I revisited these islands, proceeding southward via canoe from Neah Bay as far as Destruction Island, and returning by the same course toward the end of the month. At Carroll Islet, in the Quillayute Needles Reservation, we tarried several days, and the beauties of that miniature paradise must form the theme of a later report.

<sup>a</sup> NOTE.—Hastily prepared by special request on the eve of publication. Mr Dawson will present a fuller account of his visit to the foremost of these bird islands, under the title "Bird-life on Habahtaylch," in a future number of THE CONDOR.—Edd.

The ruggedness of this coast is occasioned apparently by a great fault, or crack in the earth's crust, running roughly north and south. The sea-floor having been dropped to westward, the upturned edges are left on shore at the mercy of the waves. Moreover, the shore line is complicated by transverse folds of rock, the precursors of the Olympic Mountains to the eastward; and these are usually marked, off-shore, by a chain of islets in descending series, the outermost member of the series being the most denuded, and the innermost being mere detached fragments of the mainland with forest crowns intact. It is thus that the more than six score of islets, which rise above the spray-line, are grouped into nine principal systems, roughly corresponding to the chief promontories.

Because of their proximity, considered as a whole, to the Olympic Mountains, and because they are in a sense the by-products of the same orogenetic movement, I have proposed for these islands the name Olympiades (pronounced Olympiah-diz). The name will be all the more convenient now that they are arbitrarily divided into three administrative groups.

All the islands between Gray's Harbor and the Straits of Juan de Fuca are cov-



A WHITE-CRESTED CORMORANT ROOKERY; QUILLAYUTE NEEDLES RESERVATION

Photo by W. Leon Dawson

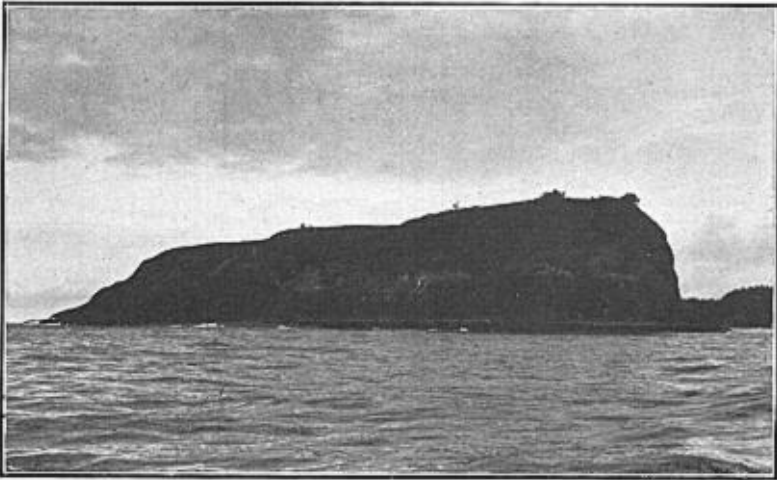
ered by the executive orders, save Destruction and Tatoosh, which are already occupied by Government lighthouses, and upon which, presumably, the same measure of protection will be enforced by the Lighthouse Board. James Island, altho specified in the orders, is virtually a part of the mainland, and is already occupied for gardening purposes by the Quileute Indians. With these exceptions, none of the Olympiades has any economic value, save that of bird propagation or as a lounging place for sea-lions.

Those islets which are not fully denuded by the combined action of the elements and the sea-birds, are covered with a dense growth of bushes, chiefly a dwarfed salmon berry and salal. This crown invariably affords cover for the Rusty Song Sparrow (*Melospiza cinerea morphna*) and occasionally for the Sooty Fox Sparrow (*Passerella iliaca fuliginosa*). On Destruction Island, Russet-backed Thrushes (*Hylocichla ustulata*), Lutescent Warblers (*Helminthophila celata lutescens*), Yellow Warblers (*Dendroica aestiva*), Barn Swallows (*Hirundo erythrogaster*), Western Winter Wrens (*Olbiorchilus hiemalis pacificus*), and Rufous

Hummers (*Selasphorus rufus*) are also included among the resident land birds; while the tree-crowned islets near shore support the ordinary fauna of the mainland. Ravens and Northwest Crows, Peale Falcons and Sparrow Hawks lay the entire region under tribute, but the Corvids, at least, nest invariably upon the mainland. The Olympiades boast twelve species of nesting sea-birds, as follows:

**Hæmatopus bachmani.** Black Oystercatcher. At least one pair—usually no more—of these noisy fowls occupies every major rock among the Olympiades and every reef which lifts a head, say, twenty-five feet above the surf. The larger islets may support half a dozen pairs at once, and Destruction Island has about twelve. They usually nest upon the bare rock, and they prefer a station at the summit of the tide-washed shoulder or “water-table” of the island. Here their eggs fall an easy and frequent prey to that indefatigable connoisseur, the Raven.

**Larus occidentalis.** Western Gull. Colonies of this species occupy the chief rocks of the Copalis Rock Reservation, but the bird is only casual northward, where it is supplanted by *glaucescens*. In the great Glaucous-wing colonies, which oc-



ALEXANDER ISLAND, QUILLAYUTE NEEDLES RESERVATION

Photo by W. Leon Dawson

cur on Wishaloolth and Carroll (in the Quillayute Needles Reservation) a few typical Westerns may be seen, and between these and true *glaucescens* every gradation appears to exist. I took no specimens, but if appearances count for anything there are ten “mulattoes” to one full-blooded darky Western, on Carroll.

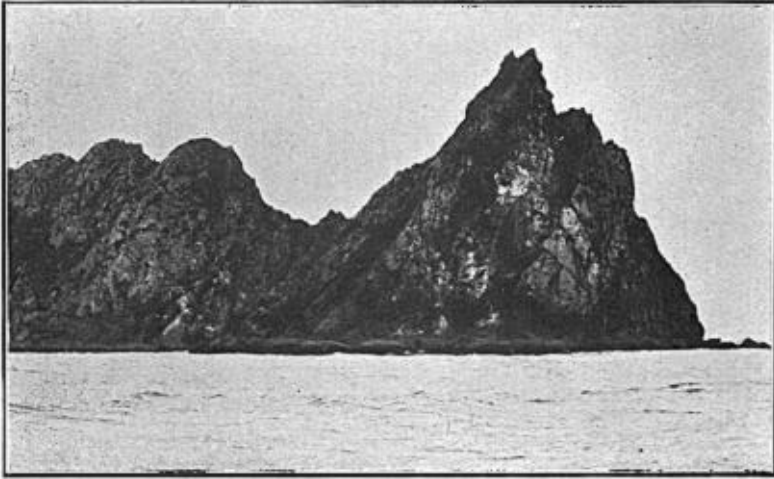
The Quinault Indians have plundered the colonies on Split Rock and Wiloughby for ages, and one of the first effects of the order will be to stop that. The gulls have become very wary, not to say discouraged, and a thousand might cover the breeding population north of Copalis Rock proper (of which I have no information).

**Larus glaucescens.** Glaucous-winged Gull. Gulls, like Baird Cormorants, nest in scattering fashion wherever opportunity offers. From one to forty pairs, therefore, may be found about every principal rock north of Destruction Island. They colonize extensively, however, upon Cake Rock, which is nearly inaccessible; Dohodaaluh; Wishaloolth, Carroll Islet (Habahtaylch); White Rock (Peechwah); Old Rock (the outermost member of the Flattery Rock group); Father and Son;

and Silversides (the outermost member of the north line of the Point-of-the-Arches group). The largest colony, numbering several thousand, appears on Wishalooth (unfortunately listed in the Executive order as "Bald Island". The name is unpardonable because of its banality. Please do not repeat it), which is a mountain range in miniature and one of the most weirdly picturesque of the Olympiades. A modest estimate of the total number of this species among the Olympiades is 10,000.

Like the Westerns the Glaucous-wings have suffered much from Indian deprivations. The Siwash has been reared on gull omelette or gull fricassee or both at once, and the deprivation will undoubtedly work some hardship. The Quileutes and Ozettes are, however, for the most part, peaceful, law-abiding folk, and I have found them highly trustworthy.

**Phalacrocorax dilophus cincinnatus.** White-crested Cormorant. Something like a dozen colonies were found, confined of necessity in each case to the sharp ridges or to the barren acropolis itself. North Rock affords a typical instance.



WISHALOOTH: SITE OF THE LARGEST GLAUCOUS-WINGED GULL COLONY;  
QUILLAYUTE NEEDLES RESERVATION

Photo by W. Leon Dawson

Here on the very summit occurs the largest colony of the coast, numbering near a hundred pairs.

The Shags have suffered not a little from the native egg hunters, but they have suffered more from Ravens. Curiously enough, I know of no instance in which their eggs or young have been molested by Glaucous-winged Gulls.

**P. penicillatus.** Brandt Cormorant. Four colonies were found, one of some fifty birds on the summit of Grenville Arch; one of fifty on Ghost Rock (not "Cohort" Rock—*vide* "Pacific Monthly", April 1907, p. 381); one of fifty-eight on the crest of Jagged Islet, since deserted; and one of about the same number as the last on "the pinnacle" (Paahwoke-it) west of Carroll.

**P. pelagicus resplendens.** Baird's Cormorant. The Baird Cormorant is the ubiquitous bird of the Olympiades. Not a sea-wall but has some niche or pedestal or boss, where this intrepid shag may "lay her young"—intrepid, that is, where only the sea is concerned, but timorous past all reason before mankind. She

usually manages to find some inaccessible place to put her eggs, but she quits the nest on the slightest provocation, or none, and the Raven laughs in his sable sleeve. An estimate of 6,000 would scarcely cover the Baird Cormorant population.

**Oceanodroma kædingi.** Kæding Petrel. Petrel cities exist on Erin (off Grenville Point), Alexander Islet, Dhuoyuatzachtahl, Wishaloolth, Tatoosh, and Carroll. The last named is a mere village of some hundreds. The metropolis is evidently on Dhuoyuatzachtahl, where in the space of an acre perhaps 40,000 of these eery sea-waifs nest. Very possibly other colonies may be found on such rocks as Cake, Rounded Islet, and Silversides, as these were not minutely inspected.

Strangely enough, no Fork-tailed Petrels (*Oceanodroma furcata*) were seen along the entire coast, altho they are said to abound on the Oregon rocks.

**Lunda cirrhata.** Tufted Puffin. Many of the Olympiadic islets have sloping grass-covered sides and these are invariably occupied by Puffin burrows. Thirteen major warrens were noted, and of these the largest occurs on Carroll, whose Puffin population in 1907 we estimated at 10,000. Puffin burrows are usually easy of access, inasmuch as the more precipitous rocks are generally denuded; but now and then one sees a high-hung colony as safe as tho transplanted to Elysium. Contrary to the experience (?) of certain imaginative writers, I have found these birds absolutely silent.

**Cerorhinca monocerata.** Rhinoceros Auklet. The only colony of this bird appears on Destruction Island, whose slanting sides, grass-covered, brushy, or barren, are completely given over to them. This island, unlike the remaining members of the Olympiades, is composed of glacial, or glacio-alluvial, deposits in place, a mere detached bit of the mainland floor; of a piece with the Hoh valley four or five miles away. On this account, therefore, it offers asylum to birds which insist on driving long tunnels—ten to fifteen feet long in some instances—and the Auklets on Destruction must number close on to 10,000.

**Ptychoramphus aleuticus.** Cassin Auklet. Because of its early nesting this bird was overlooked in July, '06. In June we found them upon Dhuoyuatzachtahl, Alexander, and Carroll, and they doubtless occur in season at other places.

Certain cries heard on Tatoosh Island on the night of June 4th we were not able to investigate because of weather conditions, but suspected Cassins.

**Cephus columba.** Pigeon Guillemot. Not common along this coast. Perhaps not above fifty pairs to be found—these chiefly at Grenville Arch, Willoughby, Destruction, and Carroll. One bird nesting on one of the sandstone reefs which guard Destruction Island, had squeezed herself into so narrow a chink that she was glad to call one egg a "set."

**Uria troile californica.** California Murre. Murres do not occur in great numbers. More occur upon Carroll Islet and its adjacent pinnacle, Paahwoke-it, than elsewhere; but an estimate of a thousand would cover them. The crown of the Grenville Pillar holds perhaps 500, and 300 more find lodgment on Willoughby. Apart from these three stations only small groups of ten or a dozen pairs may be found.

As a result of the July reconnoissance an estimate of 40,000 was placed upon the entire sea-bird population of the Olympiades, other than the Petrels. In June last we were inclined to scale up Gulls and Baird Cormorants one-fourth, Puffins and Rhinoceros Auklets one-half, leaving the total, including Cassin Auklets, at nearer 60,000. The Kaeding Petrels, of course, constitute the element of uncertainty, but an estimate of 100,000 will at least represent the "order of magnitude" of their numbers. Altogether an estate well worth preserving by Uncle Sam for Uncle Sam's nephews, of whom we are gratefully which.

Seattle, Washington.