The present status of the Kagu, *Rhynochetos jubatus*, on New Caledonia. —From observations I made on the island during 1944 and 1945, the extinction of this sole representative of the suborder Rhynocheti in the relatively near future seems probable. I should like to present some obvious factors hastening the process of extermination of this and other species. Unfortunately I am able to propose no remedy for the situation other than the continued support of the French inhabitants and of the authorities in giving the Kagu complete protection.

The Kagu is still to be found in some numbers inhabiting the remote, dense forest and brush of the steep, narrow valleys in the southern mountains of New Caledonia but it is nowhere common. The relatively large size of the island—over 8,000 square miles—and the bird's rather inaccessible habitat have undoubtedly been of primary importance in the perpetuation to the present time of this flightless, ground-nesting species.

Previous to the discovery of the island by Captain James Cook in 1774, the only terrestrial mammals present were the Melanesian natives and the small Polynesian rat, *Rattus exulans*. Neither of these apparently was a serious threat to the Kagu.

However, with the arrival of white man and his predatory followers and domestic animals, the balance was upset and decimation of the Kagu began. Its strange calls and habits and extreme longevity (20 to 30 years is not uncommon for captive individuals on New Caledonia), and the beautiful display of the male made it a prime object of interest to zoos, bird fanciers and museums. This led to trapping and exportation on a commercial basis. The Japanese were the most insidious trappers during this period which reached its peak shortly before the war. During my stay on the island grim evidence of their clever methods was still to be seen. Remains of Kagus were occasionally found firmly grasped by the twisted-stick snares placed in the mountain trails years before. The trappers had set their snares through many miles of this region, and they had visited them only occasionally to remove live birds and leave the dead ones. They seldom destroyed an unsprung set when a trap line was abandoned. Hunting and capturing specimens with dogs was another method commonly used. While meat has always been scarce on the island, the Kagu in its remote habitat never became a primary source of food, although I spoke with some people who had eaten birds killed by their dogs on deer and pig hunting trips.

Other direct effects of white man's activities, though perhaps not of primary importance, are the burning, lumbering and mining that have been carried on over most of this area. While most of the burning on New Caledonia has been restricted to the Naiouli-grass (*Melaleuca*) association, fires have spread during the dry season into the mountain forests and brushlands. Undoubtedly such fires have driven the Kagu from these areas. The mining has usually been of the terrace type and restricted to the ridges, although trails and narrow-gauge railroads have been made through the forests to reach the mines. Logging operations also have demanded similar trails and railroads. In this case they extended through more forest land because the important timber here, Kauri (*Agathis*) and the New Caledonia pine (*Araucaria*), do not occur in dense stands but are usually widely scattered. Cutting timber and brush for the establishment of camp sites for these operations did not do extensive damage to the habitat of the Kagu. However, the black rats and Norway rats, arriving shortly thereafter, built up dense populations at these sites. The overflow of rats from such saturated areas spread out into the surrounding forests.

Of most importance are the predatory mammals which are destroying the Kagu and other species at an apparently ever-increasing rate. Cats and dogs roam the mountains and undoubtedly take a heavy toll of the adults and young and of the single eggs.

Escaped pigs and the introduced rats are also causing heavy damage to the Kagu at the present time. They not only kill the birds but also destroy its food supply of land snails and large earthworms. Although the evidence supporting this statement is not conclusive, I often found snail shells in rat runways and burrow entrances and scattered about in other odd places. Many of these had been gnawed in typical rat fashion. Remnants of completely crushed shells found in the forest suggested the work of pigs because the Kagu itself has a unique method of breaking the snail shell. With a single blow of its powerful beak the shell is cracked about the middle, the body of the snail grasped and the remaining shell quickly removed by vigorous shaking. I observed this in captive Kagus, one of which I had for several months.

In some areas, many acres have been rooted up by the pigs. This continual rooting seems to have destroyed the requisite habitat of the snails and earthworms for I was able to find but few in such areas. The pig and rat may also take young birds and eggs.

Rattus norvegicus was not common in most of the habitat of the Kagu but was taken occasionally far from human habitation. Where lumbering and mining camps were in use, it was present, however, often in considerable numbers. I was unable to determine whether this species remained numerous in these areas long after these camps had been abandoned.

The three subspecies of the black rat, *Rattus rattus rattus*, *R. r. alexandrinus* and *R. r. frugivorus*, however, were found to be common to abundant around the abandoned camps, along forest streams, steep banks and in rotting logs and hollow trees. Their holes, runways, food detritus and feces were abundant in local areas in the mountain forests.

The Sambar deer (introduced) may have an increasingly detrimental effect on the Kagu by the destruction of cover, but during 1945 it was not common enough in the mountain forests of southern New Caledonia to be of importance. Cattle grazing has had no appreciable effect to date.

Thus these factors: (1) decimation by man through trapping and hunting (now prohibited); (2) predation by rats, cats, dogs and pigs; and (3) destruction of natural habitat of both the Kagu and its food supply by pigs, and by mining, lumbering and burning, are all hastening the extermination of this endemic species.—DWAIN WILLARD WARNER, *Laboratory of Ornithology, Cornell University, Ithaca, New York.*

***Microsittace* not different generically from *Enicognathus*.**—Recently we had occasion to examine the specimens in the Museum of Comparative Zoölogy of the two monotypic parrot genera, *Microsittace* Bonaparte, 1854 (southern Chile and Argentina) and *Enicognathus* Gray, 1840 (Chile). Although as species *M. ferruginea* and *E. leptorhynchos* are instantly distinguishable, there seem to be no sufficient characters to separate the genera. Ridgway (U. S. N. M., Bull. 50: 110, 1916), following Salvadori, would separate them on these characters:

> Unguis of maxilla produced, at least as long as rest of maxilla, culmen as long as outer front toe with claw—*Enicognathus*.
>
> Unguis short and strongly decurved, much shorter than rest of maxilla, culmen shorter than outer front toe without claw—*Microsittace*.

The measurements of the culmen relative to a toe prove nothing since the toes may be subject to undetected lengthening or shortening in evolution and there is no reason to suppose this is correlated in any particular way with the evolution of the beak. This is only a convenient way of obtaining relative measurements.

The distinction in the maxillary ungues is striking but not more so than the difference between *Licmetis* and one or two of the other subgenera of *Kakatoë*.