

THE MALLOPHAGAN PARASITES OF THE KEA.

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THE notorious sheep-destroying parrot of New Zealand, the Kea (*Nestor notabilis* Gould), has not hitherto been examined to see what, if any, parasites help to make life troublesome for it as itself works misery for the New Zealand flocks. The Kea feeds on carrion mostly, but has also the deplorable habit of alighting on a sheep's back and tearing away the flesh until it gets at the kidney fat, which it eats with depraved relish. It then flies away, leaving its unfortunate victim to suffer until death mercifully comes to it.

Specimens of Mallophaga sent me by Mr. D. L. Van Dine, Entomologist of the U. S. Experiment Station at Honolulu, obtained by him from Mr. Brigham, Director of the Bishop Museum, show that Kea has some troubles of its own. In a vial of Mallophaga collected from the Kea in New Zealand there are three species of these parasites representing the genera *Lipeurus*, *Colpocephalum* and *Menopon*. All of these can be referred to already described species but curiously enough only one of them is a species typical of parrots, the other two being recorded only from true raptorial birds.

Lipeurus circumfasciatus Piaget, var. *kea* Kellogg. Males and females from the Kea, *Nestor notabilis* (New Zealand). Differs from the species type in the much larger size and the absence of even the slightest angular projection on 3rd segment of the male, and the presence of a distinct, although small, lateral projection on the 4th segment. Male, length, 2.30 mm., width .6 mm., female length 3 mm., width .61 mm.

Colpocephalum setosum Piaget. Several females from the Kea, *Nestor notabilis* (New Zealand). Differs markedly from any *Colpocephalum* so far described from parrots and is undoubtedly identical with Piaget's *C. setosum* described from the vulture, *Cathartes gryphus* (Zool. Garden of Rotterdam).

Menopon fulvofasciatum Piaget var. *kea* Kellogg. Three adult males and several young from a Kea, *Nestor notabilis* (New Zealand). Although differing in some details and a little larger than the type these specimens can probably be referred to Piaget's *M. fulvofasciatum* described from *Buteo vulgaris*. The Kea specimens are certainly unlike any *Menopon* previously recorded from the parrots. The differences which distinguish the Kea specimens from typical *fulvofasciatum* are the additional spines in lateral angles of prothorax, a difference in the ninth abdominal

segment which is *not* abruptly distinguished from the eighth as in the species type, the more strongly colored lateral ends of the transverse abdominal blotches, and the slightly larger size, the males being fully 2 mm., long, while *fulvofasciatum* is recorded as but 1.6 mm. in length (male).