

The degree of pneumaticity seems to vary, the *femur* always enjoying that condition to the fullest extent, and usually the proximal moiety of the tibiotarsus—sometimes the entire bone. Usually all the bones of the foot, including the tarso-metatarsus are non-pneumatic.

Eagles as a rule possess a small *patella*, which is flat on top and anteriorly, but convex posteriorly; in the Wedge-tail its greatest transverse diameter measures about a centimeter and a half, and rather less in the vertical direction.

CONCLUSIONS.

From a survey of all the characters here shown, it would seem that *Uroaetus audax* is slightly smaller than *Aquila chrysaetos*, in so far as its skeleton is concerned, and much smaller than such species as the Monkey-eating Eagle and the Kamchatkan. In its osteology it appears to be most nearly related to the Golden Eagle (*Aquila chrysaetos*), and this relationship will probably be supported by the characters presented on the part of the remainder of its morphology, when that comes to be studied.

Tasmanian Notes

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Movements of Swifts in Tasmania.—A disturbance arose from south-east on 26th January, 1920—a vivid flash, a peal of thunder, then rain and high wind, quite cold. Next day fine, but S.E. wind continued. Just before sunset the first of the Spine-tailed Swifts (*Chaetura caudacuta*) seen this summer began to come over from North-west, flying rather languidly, "fluttering" the wings, more than usual, and in small, straggling parties, at a height of from 100 to about 200 feet. They were passing from 7 p.m. until nearly 7.30, against the wind; sky fairly clear. Next morning air quite sharp, with frosty tang in it. No more were seen until the end of February, when at 2.30 p.m. several were seen at no great height making their way, one at a time, to the west. At 5 p.m. a large number appeared, at first making way towards S.W. against a strong wind; they afterwards played about at a great height, then moved away in a north-westerly direction, towards the sea. Others appeared at a much lower elevation, also making to N.W. Weather cool and windy, after rain, which had succeeded several weeks of heat and drought. On 9th March, a pair of Swifts was observed towards evening making away to north-west, wind S.W. fresh, fine after rain yesterday. On 14th March, a single bird flew to south-east; calm, overcast, electric, rain threatening. It was fine, with very strong southerly breeze on 21st March, after N.W. gale, with heavy rain previous day; small party of Swifts feeding about 2 miles inland, many flying quite low. 23rd March: Fine Aurora

last night till daylight this morning; in afternoon large number of the birds appeared, some low, others various heights up to a great altitude, all apparently insect-catching; rain began while I was watching; nice long shower, hardly perceptible N.W. breeze. While on Ulverstone Show Ground, about 12 miles west of Devonport, on 25th March, a number of the birds appeared, flying quite low; calm, sultry day, with a few light showers. Between 5 and 6 p.m., a large number appeared (also at Ulverstone) at a great height overhead, circling in a mazy dance for a long time at about the same spot. Some appeared to make off over the sea (north) before dark, others seemed to move eastward; there was another light shower, then clear. A friend told me that a large number of Swifts were over Devonport the same afternoon I observed those at Ulverstone, some very low; towards evening they rose to a considerable altitude, and apparently passed to eastward. The same night another Aurora was seen, so there was evidently much electric tension in the atmosphere, causing the peculiar movements of the birds. They evidently migrated at this time, as none was seen later. During the summer of 1921, the birds began to appear just after New Year; on evening of 2nd January a considerable number passed over Devonport towards south-east, about 7.30, at various heights, some at a very considerable altitude. The previous day had been extremely muggy, with electrical disturbance, and rain from north at night. On evening of 4th March, a pair passed over going south or inland; next day, heavy wind from south, with shower or two. A solitary Swift seen on afternoon of 17th March, passing towards S.W., in teeth of strong wind; air dry. Morning of 21st was overcast, smart shower from N.W. before noon; shortly afterwards a dozen or so of Spine-tails passed towards S.W. at medium height; in later afternoon and evening brisk cool S.W. wind. On 23rd March, a friend and myself started from Devonport for Hobart on a beautifully sunny morning; about dinner-time we passed large numbers of Swifts on the hills just off the main road, between Ross and Tunbridge, flying backwards and forwards over sparsely-timbered country, evidently taking insect food; they continued for about ten miles, so there must have been a great company altogether. Early afternoon somewhat sultry, with light N.W. breeze, afterwards clouded over, heavy shower before 5 p.m., heavy wind and showers next morning. This was by far the largest quantity of Spine-tails encountered this summer; the last observed were after tea on 9th April, at a medium height, going directly towards N.W., not feeding, evidently on migration; wind S.W., strong, squally; there had been high wind and rain the previous night, and rain also followed their departure.

The first Spring Migrants to arrive were the Pipits (*Anthus australis*), a small party of which were seen on the morning of 3rd August in a grass paddock close to Don Road. They looked

very spruce in rather dark-brown plumage (upper surface), as if not long moulted. The previous day had been miserably cold and wet from south-west, but the 3rd was sunny, and the birds had probably arrived in the early morning. On 15th August a Pallid Cuckoo (*Cuculus pallidus*) crossed the road from one thick shrubbery to another, quite silently, nor did this species begin to call until 6th September. This fact of the first Pallids to arrive remaining silent for two or three weeks has been previously noted. Are they all females? The other common species, the Fantailed (*Cacomantis flabelliformis*), seems to call almost immediately upon arrival. The first newcomers of these were here early in August, but the Bronze Cuckoo (*Lamprolaima phaeopus*) was late, not being heard until 10th October. The little Tree-Diamond (*Pardalotus striatus*) or "Pick-it-up," was not noted until 20th September, although its cheerful call is usually heard in the gums close to my cottage just at the end of August or in the first few days of September. The Welcome Swallows (*Hirundo neoxena*) were in the town on 30th August, but did not appear on the hill where I live until a week later. On 18th September a solitary Wood-Swallow (*Artamus cyanopterus*) was seen coming from W.N.W., while on 20th a pair of Summer Birds (*Glaucalus nova-hollandiae*) was noted among the gum-saplings in wet, windy weather, N.E. to N.W. This species has since appeared in considerable numbers, while both Pallid and Fantailed Cuckoos are also in plentitude, but Bronze very scarce so far. The little Tree-Martins (*Hylochelidon nigricans*) I did not see until the middle of October, although probably in the more heavily-wooded country they would have arrived some time ago.

A somewhat remarkable occurrence took place on the last day of July, the morning of which broke fine and clear, and when the sun began to have some warmth, at about a quarter past eight, a Fantailed Cuckoo (one of the few which winter with us) began to utter its soft trill from a tree near the window. In the meantime, a squall-cloud had been working up from the mountains to the south, and at half-past eight large flakes of snow began to fall, the first I have seen in Devonport for many years. The fall lasted for an hour, and was succeeded by others through the day; this put an effectual stop to the Cuckoo's singing, nor was it heard again for several days. It is the first occasion on which I have known the "closure" to be applied to a Cuckoo by a sudden snowstorm.

W. Department, Tasmania, 27/10/1921.

ABOUT MEMBERS.

The American Ornithologists' Union has elected A. H. E. Mattingley, C.M.Z.S., and W. B. Alexander, M.A., two well-known members of the R.A.O.U., Corresponding Fellows of their Union.