

Mesotartarate is inhibitory from 36 hr. and onwards, and consistently more inhibitory than L(-)-tartrate.

DL-tartrate, which is the racemic mixture of D(+)-tartrate and L(-)-tartrate, was slightly stimulatory at low concentrations. At higher concentrations, it proved, unexpectedly, to be more inhibitory than the L(-) form given alone, and at the highest concentration even more inhibitory than the mesotartarate.

These effects might be related either to the metabolism of natural organic acids in the plant or to the action of growth substances, or to both. A discussion of the results must, however, be postponed until further evidence has been obtained.

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¹ Tetjürew, W. A., *Planta*, **32**, 211 (1941).

² Evenari, M., *Bot. Rev.*, **15**, 153 (1949).

'Recurrence' of *Macroderma gigas* Dobson

It is now fifty-eight years since E. R. Waite¹ employed the above title to record what he believed to be the second specimen of this bat, remarkable alike for being the largest member of the suborder Microchiroptera, for its carnivorous habits and for grotesque appearance. Waite's specimen came from the Pilbarra district of the North Western Division of Western Australia, 1,600 miles from the locus of Dobson's type, and provided an enormous extension of range; but he overlooked the fact that the species had been obtained in the Macdonnell Ranges of Central Australia in 1890 and again in 1894.

Since Waite wrote, a belief in the great rarity of the species and its near extinction has grown and has been fostered in popular writing by dwelling upon the abundance of its mummies in caves of the arid north of South Australia. These relics, however, are probably in large part sub-fossil, and recent field work has tended to show that the living animal is much more numerous and widespread than was believed. Tate² in 1948 obtained a series at Johansen's Caves near Rockhampton in coastal Queensland, near Olsen's Caves which had yielded it twenty years before, and Douglas³, Robinson⁴ and Ride, W. D. L. (personal communication), have shown that it persists in at least three localities in the North West and West Kimberley Divisions of Western Australia. I am now able to add three new sites in the Northern Territory: (1) the tableland scarp in the Macallum Creek area at about lat. 13° 16' S. and long. 130° 44' E.; (2) caves on the Field River near the eastern edge of the Arunta desert at about lat. 23° 34' S. and long. 137° 53' E.; (3) the Ellery Creek gorge in the James Range at about lat. 24° 5' S. and long. 132° 49' E. In addition numerous reports from intermediate localities of 'white flying foxes' drowned in tanks or otherwise destroyed are strongly suggestive of *Macroderma*.

It has been claimed that the chief food of the species consists of smaller bats. I have obtained no new evidence of this from personal observation, and the accounts of the aborigines are conflicting. In some parts of the country they regard this bat with aversion and state that men have been attacked by it on entering its roosts.

The Central Australian material is in close agreement with the type as described and with the desiccated material from South Australian caves; but it may be noted that the general pallor which has

earned it the modern vernacular term 'ghost bat' is not an invariable feature. I have examined Queensland specimens in which the dorsal pelage is a deep brownish drab (about Ridgway's 'hair brown') and the ventrum a decided plumbeous in place of snowy white and with a corresponding darkening of integument; the cranial characters are normal.

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Jan. 13.

¹ Waite, E. R., *Rec. Aust. Mus.*, **3**, 188 (1900).

² Tate, G. H. H., *Bull. Amer. Mus. Nat. Hist.*, **98**, 608 (1952).

³ Douglas, A. M., *West. Aust. Nat.*, **5**, 140 (1956).

⁴ Robinson, E., *West. Aust. Nat.*, **5**, 232 (1957).

A Chimæra of *Alaria* and *Laminaria* found in Nature

A CHIMÆRA of two kelps belonging respectively to *Alaria* and *Laminaria* was recently collected by one of us (M. I.) on May 18, from among a mass of seaweed which drifted ashore in the neighbourhood of the Marine Laboratory for Biological Education, Hokkaido Gakugei (Arts and Science) University, situated at Shirikishinai Village, Oshima Province, in Hokkaido. The frond of this chimæra is formed by the complete lengthwise and lateral adhesion of two half-fronds each representing one of the two quite distinct genera of Laminariales.

Our specimen, unfortunately, has lost its stipe and holdfast; it is 197 cm. in length and 13.7 cm. in width at the broadest portion. The frond is strongly curved inwardly along the margin of the *Laminaria* portion, thus indicating that this portion is markedly inferior in rate of frond-growth in length as compared with the *Alaria* portion. This latter portion is provided with a complete smooth midrib, up to 15 mm. wide and up to 3 mm. thick, and a complete lateral half of the membranous frond, up to 8.5 cm. wide and up to about 0.5 mm. thick, which is sprinkled with cryptostomata. Hairs emerging from the cryptostomata are densely infested with colonies of *Liomphora lyngbyei* (Kütz.) Grunn. In the lower part of the specimen the midrib of the *Alaria* portion coalesces directly with the *Laminaria* portion, whereas in the upper part it is separated from the latter by a narrow membrane representing the other lateral half of the *Alaria* frond (Fig. 1). On the other hand, the *Laminaria* portion is rather narrow—up to 5 cm. wide and its upper half is reduced to a few scattered remnants attached along the margin of the *Alaria* portion. The *Laminaria* portion is nearly as thick as a normal frond of *Laminaria* growing at the same locality (up to 3 mm. thick near the outer margin where the frond is thickest). It is worth mentioning that the transition from the thin *Alaria* portion to the thick *Laminaria* portion is so smooth that the latter shows a very gradual increase in thickness in a transverse section through the border between the membranous part belonging to *Alaria* and the coriaceous part belonging to *Laminaria*. The zoo-sporangial sori are borne on both surfaces in the upper part of the *Laminaria* portion near the border between the two parts, in longitudinal narrow patches, 0.1–2.0 cm. broad (Fig. 1). After a further examination of several other characters, the constituents of this chimæra are concluded to be referable respectively to *Alaria crassifolia* Kjellm. and *Laminaria angustata* Kjellm.