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an Essay on the British Formicidæ.

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particularly alluded to it in the former part of this Essay, in the hope of inducing others to attempt the solution. It is most probable that the ants imprison only the species of Staphylinidæ, and that all other beetles found there resort to the nests for the purpose of feeding upon a suitable nutriment which they contain, or for the purpose of undergoing their metamorphosis; many which are found in ants' nests during winter have undoubtedly sought that situation for the purpose of hybernation. From the various species of Brachelytra I think there can be little doubt the ants obtain an exudation similar in its nutritive qualities to that which they obtain from the Aphides; those species which we see the ants carrying into their nests, tending with such care, and which, on our disturbing their habitations, they eagerly seize and carry off with the same precipitation as their young brood, are undoubtedly conducive to an important phase of their economy. Species of Coleoptera, such as Hetærius sesquicornis, various species of Liodes, Cryptophagus, Corticaria, Latridius and Dromius, all of which I have met with, cannot be supposed to be in any way capable of furnishing nutriment for the ants, but may still prove benefactors by feeding upon and removing substances which might otherwise render their habitations more or less foul and unhealthy.

Of all the families which compose the insect-world, there is none in my opinion, which presents such wonderful varieties—I may say eccentricities of form, as the Formicidæ; the organs of manducation in some species, as in Drepanognathus and Eciton, present an elongation equalling the length of the insects themselves; in Atta, and some other genera of that family, they are thickened and expanded to such a size as to be nearly equal to one half of the head itself; then again, as a reverse of this, in the males of some species of Myrmecina, the mandibles are rudimentary and in others obsolete. The antennæ partake of every variety of length and thickness, and the palpi of every number of joints between six and one; the variation in the number of the joints of the antennæ, forms perhaps one of the most remarkable deviations from what may be considered the normal number. namely, twelve in the female and worker of the social species. and thirteen in the males of the entire group of this class of insects. In the genus Cryptocerus and its allies, several remarkable deviations from the usual number of joints in the antennæ are met with: thus in Orectognathus the number is six in the worker ants, whilst in Cryptocerus they vary from nine to twelve in the workers. Remarkable as these deviations certainly are, they are not in my