Matters had thus been arranged between the two animals so that, as is well known, the head of Adamsia hung downwards and its tentacles, brushlike, were carried over the surface of the sand when the hermit-crab travelled from place to place. The first two pairs of the long, slender walking legs of the hermit-crab were directed backwards in a manner which suggested protection of the anemone, but this appearance was misleading, as it was soon found that their function, in addition to that of locomotion, was to steal the food collected by the anemone. This was effected most cleverly by an underneath upwards sweep of the leg, the terminal portion of which passed through the tentacles of the anemone and carried any food found therein swiftly to the mouth of the hermit-crab. It is interesting to note that these limbs seem specially adapted to this purpose. The part mentioned (the dactyl) in this species (*E. prideauxii*) is long and very slender, and its inner or concave side is beset with a row of many long fine hairs projecting inwards like the bristles of a brush, thus forming a very effective instrument for sweeping out the mouth of the Adamsia. At times, also, the claws were doubled under the hermit-crab's body and seized the food which had been secured by the anemone. At first food was supplied for the joint use of the animals. Later on I experimented and tried to *feed* the *anemone alone*, but in this I never succeeded, as although the hermit-crab could not see the food, it was so instantly detected and swiftly swept away, as described, that one wondered how the anemone ever got sufficient for its own needs. Whether some sensory hairs on the dactylopodite had anything to do with detection I cannot say.

My observations seem to show that, though both animals benefit, the advantages of the partnership in this particular case are very largely on the side of the hermit-crab, which, in addition to being supplied with food, may possibly derive some benefit from the Adamsia's power when irritated, of firing a broadside of stinging threads through the numerous portholes in its sides. So far as I can see at present, the only profit to the Adamsia is that of being carried from place to place, and thus afforded a better chance of securing food, for which, as has often been pointed out, the downward direction of the mouth and tentacles is most favourable. The anemone may, of course, derive other advantages which are less obvious, and the parallel case (to which Dr. Orton has directed attention) of the little tropical crab, *Melia tessellata*, which carries in each claw a living sea anemone and uses it as a weapon and also (like Adamsia) as a collector of food, suggests the possibility.

On the face of it, Adamsia and the little anemones first mentioned seem to be the willing slaves of the hermit-crabs, for P. H. Gosse's observation, in 1859, of how *E. prideauxii* with its claws transferred the Adamsia from its old shell to a new one ("A Year at the Shore," pp. 241-247), which was later confirmed by Col. Stuart Wortley (*Ann. and Mag. Nat. Hist.*, 1863, p. 388), seems to show that the hermit-crab is the keenly interested active agent in arranging matters so advantageously for itself. With the common hermit-crab (*E. bernhardus*) and *Sagartia parasitica*, however, matters are reversed. Here the anemone evidently takes the initiative, and except perhaps by the camouflage, etc., which is afforded by its riding on the whelk-shell occupied by the hermit-crab, the latter appears to derive no benefit. The position assumed by the anemone is unfavourable to the hermit-crab's sharing in its captures; moreover, the walking legs of the hermit-crab are not adapted to securing a portion, the concave side of the dactyl of *E. bernhardus* being smooth and practically free from hairs, whilst the limb is otherwise unsuitable for the purpose. It seems as though *S. parasitica* has taken a hint from Adamsia and improved upon it.

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Paradoxical Rainfall Data.

PROF. McADIE, in NATURE of March 17, p. 362, directs attention to the apparently paradoxical fact that the wettest month observed in 37 years at Blue Hill observatory fell in June, the month with the lowest rainfall average, whereas the driest month fell in March, the month with the highest average. The coincidence is a curious one, but less improbable than might at first sight appear, since the monthly rainfall is at many stations extremely variable. Some idea of its extreme variability may be gathered from the following table, showing the distribution in half-inch intervals of the rainfall at Rothamsted for 70 years from March 1853 to February 1923.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
0–·5		4	1	5	1	3	5		1		1	2	23
·5–1·0	9	11	11	8	7	9	5	4	5	4	4	6	83
1·0–1·5	12½	19	13	12	18	10	11	13	13	7	11	9	148½
1·5–2·0	7½	10	16	14	12	13	7	7	11	14	4	14	129½
2·0–2·5	10	8	10	10	12	6½	11	8	17	5	18	7	122½
2·5–3·0	9	4	7	12	8	10½	5	13	7	11	11	6	103½
3·0–3·5	7	5	4	3	5	5	9	9	6	6	6	10	75
3·5–4·0	9	6	4	3	1	5	2	7	2	5	4	3	51
4·0–4·5	4	1	3	1	3	2	5	3	3	4	7	6	42
4·5–5·0	2	2	1	2	2½	3	5	2	1	3	3	1	27½
5·0–5·5					½		2		2	3	1	1	9½
5·5–6·0						1	2	1	1	4		2	11
6·0–6·5						2				1		2	5
6·5–7·0							1	3		2			6
7·0–7·5										1			1
7·5–8·0													
8·0–8·5									1			1	2
	70	70	70	70	70	70	70	70	70	70	70	70	840

The seasonal effect appears to be more strongly marked at Rothamsted, where the mean rainfall (per day) in October is about 54 per cent. greater than that in April, than it is at Blue Hill, where the mean rainfall (per day) in February is only about 24 per cent. more than in June. Nevertheless, even in the Rothamsted data, the variability of rainfall in the same calendar month is so great that the mean values give little or no indication as to which month should be expected to score a record for rain or drought. Indeed, both records are at present held by December, which in 1864 gave one-sixteenth of an inch of rain (0·063), and in 1914 gave 8·103 inches.

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