young were obtained (by Mallett), in tanks kept at a high temperature with an abundance of forced air, from three virgin female swordtails, members of a brood that consisted entirely of females and was raised in his tanks. Later these "hybrid" fish were permitted to interbreed, and a total of 10 broods and 100 "hybrid" individuals obtained to date would be a very conservative estimate, though the original swordtail mothers died without again giving birth. The young were not in any way obvious hybrids but swordtails, mostly female swordtails and less than 10 per cent. male swordtails. An exception was the first-born fish of the first-born original-cross brood, which turned out to be a female guppy, quite typically such to outward appearances. At the age of six months this fish developed a crooked spine, and at between 9 and 10 months gave birth to brood of some half dozen young by a "hybrid" male swordtail, all of which turned out to be swordtails, not guppies.

The parentage of the original crosses seems irrefutable. The swordtail females used were about 18 months old, to be sure, when bred, but there had been no male swordtail or live-bearers other than guppies in the Mallett tanks for a year prior to the birth of their young. That the above-mentioned female guppy was a *bona-fide* member of one of the same broods can hardly be doubted. Its birth was observed (Mallett) and its growth watched from day to day. In the beginning noticeably larger and different from its brood-mates, they grew more rapidly and exceeded it in size. That this guppy gave birth to a brood of swordtails is only reasonably certain. From lack of space it was temporarily confined while pregnant in a tank with young "hybrid" swordtails, and when its own brood appeared, contrary to expectation they could not with certainty be differentiated from the smallest of these, hence the young were allowed to grow up together and all turned out swordtails.

The results obtained call to mind those described by Hubbs and Hubbs[1] for one of the live-bearers, for which they suggest gynogenesis as explanation, later questioned by Howell.[2] If gynogenesis does exist in these fishes it might reasonably be looked for in the present "cross." Nor would the female guppy be entirely out of line with such an explanation if we suppose some chance somatic determinant as well as germinal stimulus to have been received from the male parent without his chromosomes being accepted in the normal way.

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## NEW DISTRIBUTIONAL RECORD FOR THE MEDUSA CRASPEDACUSTA

ON the evening of July 25, 1934, a trip was made to a small artificial pond located near the city limits of Dallas, Texas. Much to my surprise, the water of the pond was teeming with the medusae of *Craspedacusta ryderi* (Potts). A single scoop with a pint jar yielded sixteen that varied from 6 to 12 mm in diameter.

On the following day another trip was made to the pond with the necessary equipment for a general survey. The pond, which is two years old, covers approximately one acre and is three and one half feet deep. The water supply is obtained from a Dallas city main and runs in constantly, although during this excessively hot, dry weather there is very little overflow, since evaporation is almost equivalent to the inflow. The pond is well stocked though not crowded with water-lilies, which were purchased from Texas and New Jersey nurseries. The lily-pads and stems are covered with dense growths of algae. Examinations of plankton samples revealed an abundance of ostracods, copepods, rotifers and infusoria, thus insuring sufficient food for the medusae. The pond is also inhabited by goldfish and green sunfish.

Wading among the lily-pads stirred up the "ooze" on the bottom, and in areas where the medusae had not heretofore been visible such riling of the water caused them to appear by the thousands. A close field examination of lily-pads and stems with a hand lens and microscopic examination in the laboratory of scrapings from the vegetation and sides of the pond have failed to reveal the hydroid generation. On the third of November the medusae were still abundant. The cycle will be carefully followed, and it is hoped that eventually the hydroid generation will be found.

According to Bennitt's (1932) summary[1] of the American records of *Craspedacusta,* the present report brings the total number of states from which they have been recorded up to eleven, and Texas is the third state west of the Mississippi from which it has been reported.

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# SOCIETIES AND MEETINGS

## SUMMER MEETING OF THE AMERICAN MATHEMATICAL SOCIETY

THE fortieth summer meeting of the American Mathematical Society was held at Williams College, Williamstown, Massachusetts, from September 4 to 7. This was the second meeting of the society at Williamstown, the first having been held in 1905. The Mathematical Association of America, which met in

[1] SCIENCE, n. s., 76: p. 628, 1932.
[2] SCIENCE, n. s., 77: p. 389, 1933.

[1] *American Naturalist,* 66: 287–288.