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Certain observations on the occurrence of tyrosinase in amphibian egg jell.By **A. M. BANTA** and **ROSS AIKEN GORTNER**.*[From the Station for Experimental Evolution, The Carnegie Institution of Washington.]*

In experiments having for their object the modification of pigment in amphibian larvae fresh eggs and young embryos of the following species of amphibians were placed in tyrosin solutions of 0.025 per cent. concentration: *Ambystoma punctatum* (L.), *Spelerpes bilineatus* (Green), *Bufo lentiginosus* Shaw, *Hyla pickeringii* Holbrook, *Rana clamitans* Lat. and *Rana sylvatica* Le Conte.

No coloration of the egg membranes or jell appeared in either *Ambystoma* or *Spelerpes*. There were some indications of coloration in *Bufo* jell but the coloration was so slight as to be inconclusive. *Hyla* egg jell showed a pink to violet coloration within 24 hours, after being placed in the solution, and the solution itself took on much the same color. Within 2 or 3 days the jell was much blackened, and the solution was fairly dusky with suspended humin. The egg jell of *Rana clamitans* showed some darkening within a day and after forty-eight hours was conspicuously blackened while the solution was likewise very perceptibly darkened. *Rana sylvatica* egg jell took on the rose coloration within one to three hours after being placed in the solution, and the coloration rapidly proceeded through violet to an intense black so that the eggs were invisible at a depth of 3-4 cm.

These results indicate the presence of tyrosinase in the egg jell of *Hyla pickeringii*, *Rana clamitans* and *Rana sylvatica*, and possibly in *Bufo*, but not in *Ambystoma punctatum* or *Spelerpes bilineatus*.

If the slight evidence of tyrosinase in *Bufo* is taken to indicate its actual occurrence there, tyrosinase is found in the egg jell of four species of Anura but is absent in the two species of Urodela examined. This may possibly prove to be an additional distinguishing character between these two orders of amphibians.