Qualitative analysis did not detect sulfur, halogens or nitrogen. Quantitative micro analysis: carbon 75.15%; hydrogen 8.22%. Calculated for $C_{18}H_{24}O_3$, carbon 74.95%; hydrogen 8.39%; mol. wt. 288.

Physiological Activity. Injections of minute quantities (recrystallized 10 times) of this new alcohol cause opening of the vagina of sexually immature rats and mice. Subcutaneous administration to spayed adult rats produces cornification as judged by the vaginal smears. Cornified cells appear usually on the fourth or fifth day following the injections counting the day of injection as the first. The presence of numerous cornified cells continues for several days. The response to this substance is quite different from the response to theelin. Theelin, like purified extracts of hog liquor folliculi, generally shows the peak of its action on the third day with a rapid return to the dioestrous type of smear.

5170

Physiological Reactions of Goldfish with Severed Spinal Cord.

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So far as the writer is aware, the work of Koppányi and Weiss,[1] and Pearcy and Koppányi[2] on goldfish, and that of Nicholas[3] on Fundulus embryos (none of which has been published in full), constitute all that has been done on spinal cord section in teleosts. The first two of these papers report functional regeneration of the severed cord. Nicholas definitely failed to secure any restoration of function or of anatomical continuity.

To further test the matter, a study of the results of spinal section in the goldfish *(Carassius auratus)* has been undertaken. To date, 25 small goldfish have been subjected to operation on the spinal cord. The animals were anesthetized with chloretone, transluminated in a dark room, and the spinal cord presumably cut with a knife in the region marked by the beginning of the dorsal fin. Subsequent histological examination has proved cord section in the majority of these.

[1] Koppányi and Weiss, *Anz. d. Akad. d. Wissen. Wien*, 1922, **59**, 206.

[2] Pearcy and Koppányi, PROC. SOC. EXP. BIOL. AND MED., 1924, **22**, 17.

[3] Nicholas, *Proc. Nat. Acad. Sci.*, **13**, 695, and personal communication.

Koppányi and his coworkers state that all goldfish in which the spinal cord has been severed lie on their sides. This was not found to be true in this investigation. Some remained erect, while others lay on their sides when at rest. All were capable of swimming voluntarily. As some specimens which lay on the side did not have sectioned cords, spinal section is not the cause of this behavior. The nature of the injury producing this posture is, as yet, unknown, though experiments to determine it have been carried out.

Light tactile stimulation on the body fails to produce any response in the normal, or in the spinal fish if applied cephalad to the lesion. Stronger stimulation causes swimming in normals and, if applied in front of the lesion, in spinal fish. In every case, spinal section releases a typical avoiding reaction to all tactile stimulation in the area behind the lesion. This avoiding reaction is found only in spinal fish, as proved by histological examination. It is not to be elicited in front of the lesion in spinal fish nor in normal fish.

The fins innervated from behind the lesion are not moved voluntarily, but the caudal part of the dorsal fin enters into the avoiding reaction. Progression in spinal fish is produced by the pectoral fins and the musculature of the body in front of the lesion. The tail is not used, though its fin is often passively spread by water currents created by the pectoral fins, simulating voluntary motion.

As yet, no fish with spinal lesion has survived more than 24 days. Though histological examination of sections of these fish has not afforded a complete series of stages, no evidence indicating regeneration of the cord has been observed. On the contrary, cellular lysis appears to occur in the goldfish as in the rat (Hooker and Nicholas[4]; Nicholas and Hooker[5]; Hooker and Nicholas[6]). If cytolysis should prove to be as general as now appears, cord regeneration in this form is probably impossible.

[4] Hooker and Nicholas, *Anat. Rec.*, 1927, **35**, 14.

[5] Nicholas and Hooker, *Anat. Rec.*, 1928, **38**, 24.

[6] Hooker and Nicholas, *J. Comp. Neur.*, 1930, **50**, 413.