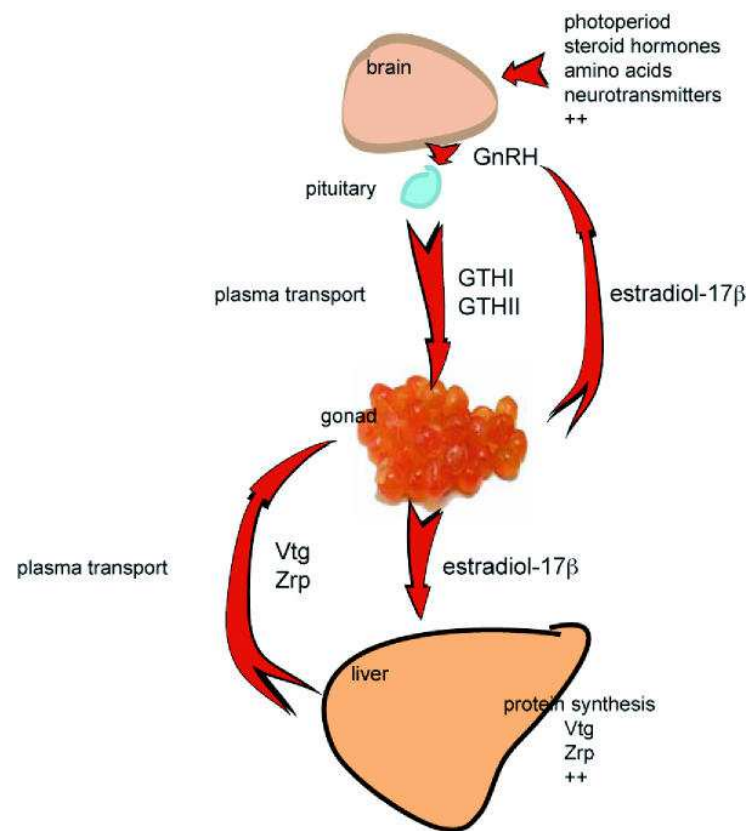


# Hypophysation

One of the first methods of artificial spawning was inducement by hypophyztation, which involved the removal of the fish pituitary gland and the injection the pituitary gland homogenate into the female and male fish to stimulate the final egg/sperm maturation and ovulation.



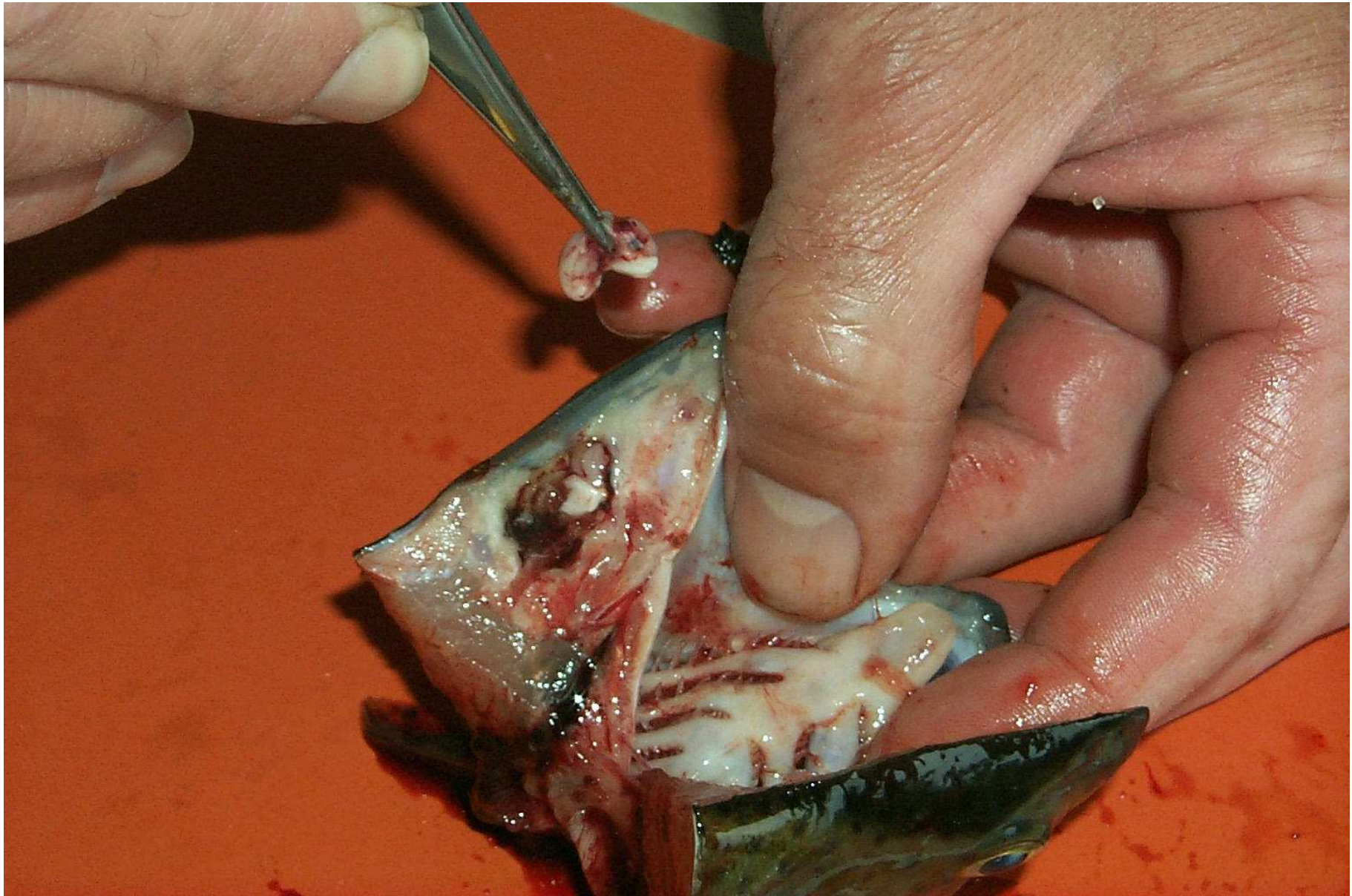
The hypophysis can be removed from male or female catfish by the following steps:



- A specimen must be killed and the head must be taken off.
- The head is divided by the middle of the mouth leaving at surface the bones of the head. Observe the forceps pointing to a small round-shaped organ, pink-white in the brain. This organ is called the hypothalamus.
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- The hypothalamus is situated at the ventral part of the basis (sella turcica) and contains the pituitary gland which secretes the gonadotrophin releasing hormone (GnRH) and the gonatrophin hormone (Gth) which is essential in the maturation and ovulation of eggs and sperm of fish.



- After the removal, the hypophysis can be placed in a mortar and mixed with a physiological solution (0,9% NaCl). The volume of physiological solution used is 1 ml per kg bodyweight of the recipient female.
- The dose is 1:1 (one hypophysis for one female) to 1,5:1.

Instead of using fresh pituitary, acetone-dried pituitaries can be used as well. The pituitary is dried as follows:

- After the removal, the pituitary is placed in a recipient containing acetone (1 ml per hypophysis).
- The acetone has to be renewed after 10 min and again after 8 h.
- The hypophysis must then be taken out of the acetone 24 h later.
- Finally the hypophysis can be air-dried by evaporation in a dark room and stocked in a closed recipient in a fresh place. This dehydrated hypophysis is used the same way as the fresh one.