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INDUCED SPAWNING OF TENCH *TINCA TINCA* (L.) 1758 BY MEANS OF HYPOPHYSIS CRUDE EXTRACTS OF *GALLUS DOMESTICUS*

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ABSTRACT

Effectiveness of hypophysis crude extracts of *Gallus domesticus* for the induction to spawning of cyprinids was measured. Human Chorionic Gonadotropin (HCG) as hormonal inductor was used as control. Eighteen two-year-old female tench and 18 two-year-old male tench divided into two lots of 9 females and 9 males each were used. All the females and males spawned after the first dose. However, males had little amount of sperm in both cases. The result was highly efficient with the hypophysis crude extracts of *Gallus domesticus*.

Key words: *Tinca tinca*, spawning, hormonal induction

1. INTRODUCTION

Hormonal induction of fish reproduction is used in many countries where the water temperature does not allow the spawning period to be earlier or this takes place very late and where a system of fingerling supply for a second annual growth period of cyprinids is used (Billard 1985; Billard, Breton 1985; Garadi, Woynarovich 1986; Crim, Glebe 1990). These countries, due to cost, supply or to lack of techniques, supply hypophysis crude extracts from *Cyprinus carpio* as hormonal inductor for the gonadal maturation of cyprinds (Lukowicz, Proske 1980). This method present many problems reflected in lack of hypophysis supplies, area, procedure, time of extraction, gonadal maturity, wastes, illness, etc. (Pérez Regadera 1988). The hen *Gallus domesticus*, is one of the most world produced species and its head has very little commercial value.

Hypophysis is located in the cranium on the *silla turca*. Hypophysis weight is between 7 and 10 mg and store a great amount of sexual hormones in the *parts distalis* where gonadotropic hormones are produced. Both the luteinizante hormone (LH) and the folículo stimulating hormone (FSH), stimulate the gonadal growth. King and Millar (1979/1980) demonstrated that gonadotropic hormones are structurally similar for both birds and fish.

Taking in consideration interaction between different species and the amount of hormonal inductor available (hen hypophysis), we have decided to carry out this research about induced

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