

The Study of Population Dynamics, Reproduction in Ecological System of Fisheries

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Fish reproduction in overflow plain ecosystems, based on relevant abundance and complete biomass of juveniles, was observed by utilizing the synchronic approach to typological examination in conjunction with Point Abundance Sampling by improved electrofishing. In 3 non-identical flood plains of the Upper Rhone River, 1200 point representative yielding 3201 juveniles from 30 species were controlled from 57 ecosystems of various geomorphological origins.

The results illustrate the lotic-to-lentic succession of floodplain biosphere to be a series of non-sequential reproductive areas with spawning surroundings being reflected by the specific composition and guild formation of the fish assemblages [1]. The habitat diversity and the fish reproductive prospective of floodplain ecosystems are strongly determined by geomorphological origin and by past and present hydrological surroundings. The assemblages of autogenically driven ecosystems (normally of anastomose or meander origin) tend to diverge both in composition and in amount from those found in allogenic systems (generally of braided origin) [2]. Ecosystems of intermediate character and fish reproduction thereof, occur as the consequences of either ecosystem rejuvenation or senescence: autogenically driven biosphere by allogenic mechanisms, or allogenic systems by anthropic and/or autogenic mechanisms, respectively. Because of co-occurrence of biospheres at close and at variety of successional position, the flood plain as an entity is seen as stable with respect to fish reproduction.

Fish captured were numbered, calculated, weighed, and testing individuals of fish were used for morphometric quantification and

meristic counts to confirm the taxonomical identification of the study species [3]. Measures of total length 1 cm, (the distance from the anterior boundary of the maxilla to the final extremity of the caudal fin), standard length less than 1 cm, (the distance between the anterior boundary of the maxilla and the last lumbar vertebra, complete body mass weight 1g and gonad weight 0.1g were noted. Sample specimens of this species were deposited in the museum collection of the branch of Systematics and Ecology of the Federal University of Paraíba, Brazil [4].

A fishery is an area with a connected fish or aquatic population which is gathering for its commercial or recreational value. Fisheries can be wild or farmed. Population dynamics express the ways in which a given population grows and shrinks over time, as supervised by birth, death, and migration. It is the basis for understanding changing fishery methods and issues such as habitat destruction, predation and optimal harvesting rates. The population gestures of fisheries is utilised by fisheries scientists to determine sustainable yields.

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