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PROPOZYCJA SPOSOBU REALIZACJI OCHRONY *EX SITU* RZADKICH GATUNKÓW RYB

PROPOSAL OF AN *EX SITU* CONSERVATION METHOD OF RARE SPECIES

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ABSTRACT

The most appropriate strategy to avoid extinction is to protect species in entire ecosystem in possibly large areas. It is defined as *in situ* protection. Due to a large extent of environmental changes it is necessary to use *ex situ* approach, which in case of fish is based on maintaining brood stocks in ponds. These brood stocks are live gene banks and source of material for stocking. For the successful use of an *ex situ* method it is critical to secure an original level of genetic variability by maintaining a brood stock with at least 120 spawners. In order to prevent possible domestication effects it is important to supplement brood stocks every 2-3 generations with offspring of wild fish and to minimize breeding effects on fish by restriction of contact between men and fish. The important part of *ex situ* program should be gene banks of cryopreserved semen of endangered fish species. Basing on achievements of Polish researchers in sperm cryopreservation and on financial support of institutions responsible for environmental protection, the creation of endangered fish species sperm banks should not be a major problem.