Hydroacoustic study on Chinese paddlefish *Psephurus gladius* in the Yangtze River, China

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The Chinese paddlefish, *Psephurus gladius*, is one of the largest freshwater fish species in the world with the recorded length up to 7 meters. The fish was endemic to the Yangtze River water system, and the population of the fish was drastically declined since 1970s because of habitat deterioration and overfishing. In 1989, the species was listed as a first-level protected animal in China, and, in 1996, was included as a Critically Endangered species on the International Union for Conservation of Nature (IUCN) Red List. Since the last live specimen which was found in the upper Yangtze River in 2003, no more live specimen have been found up to now. It was speculated that the fish was on the verge of extinction. In this presentation, we would like to report: 1) our research of using ultrasonic telemetry method to track the last live specimen found in 2003, and 2) how eight large-range hydroacoustic surveys (using an echo sounder with a 199 kHz, 6.8° split beam transducer) and capture surveys (by drift nets and setlines) were conducted to evaluate the number of the fish in the upper Yangtze River during 2006−2013. The result is not optimistic, and we are still seeking better method to find and capture a *P. gladius*. We believe that even if there are only a few specimens obtainable, modern methods such as artificial gynogenesis, cloning, and surrogate broodstock technologies could be used to save this species. Otherwise we face a situation that will quickly lead this valuable resource to extinction.

Key words: *Psephurus gladius*; Fisheries acoustics; Ultrasonic telemetry; Yangtze River