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**A PROGRESS REPORT ON THE SPECIES SURVIVAL PLAN FOR ASIAN
SMALL-CLAWED OTTERS IN UNITED STATES ZOOS**

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Asian small-clawed otters (*Aonyx cinerea*) became the focus of an American Association of Zoological Parks and Aquarium's Species Survival Plan in early 1983. At this time a committee was established to encourage more research in the captive propagation of this species toward the ultimate goal of insuring the long-term survival of this otter in zoos, and in the wild. The Species Survival Plan committee at this time consists of curators from the National Zoo, the New York Zoological Society, the San Diego Zoo, the Brookfield Zoo, the Santa Barbara Zoo, the Minnesota Zoo and a handful of other zoos in North America.

When the Asian otter SSP /committee was initiated, these otters were maintained in more than ten zoos, but were successfully reproducing in none of them. Various explanations were offered to explain this breeding failure. New animals were imported from zoos outside the United States to supplement the United States' captive population of ageing, previous pets. In the past two years two facilities have had repeated successful births, and two others have recorded first births that were stillborn. Research initiated by members of the SSP committee is now in progress to understand more of the reproductive, genetic and behavioural make-up of the Asian small-clawed otter. An assortment of these projects is summarized below. Anyone reading this report with information to supplement these findings is requested to please contact the researchers directly, or Pat Foster-Turley, the Asian small-clawed otter SSP Co-ordinator, at the address listed below.

Husbandry

Ms Connie Carson (San Diego Zoo, San Diego, CA 92112) is compiling all husbandry information available on Asian small-clawed otters and is preparing a report scheduled for completion by the end of 1986. This report will summarize the types of enclosures (natural vs. concrete), the sizes of enclosures, the husbandry routines in effect in various zoos and the diets these animals are being fed. Those facilities successfully breeding Asian small-clawed otters will be carefully scrutinized for clues to their successes that might help other zoos. The data on the presence of kidney stones in captive otters, the diets these otters are maintained on, and the types of stones and treatments will be reported on by veterinarian Dr. Paul Calle. Anyone with information to contribute to this report is asked to contact Ms Carson as soon as possible.

Hormones and Behaviour

Dr. Donald Gillespie and Dr. Cynthia Bennett (Santa Barbara Zoo, 500 Ninos Drive, Santa Barbara, CA 93103) have been studying the behavioural and hormonal correlates with oestrus of their three pairs of Asian small-clawed otters for the past year and a half. Techniques were developed to measure oestrogen and progesterone in the urine collected from the animal's holding pens. In the past six months, four other United States zoos began collecting urine from their otters and sending it to a lab for analysis, following the Santa Barbara Zoo protocol. In addition, the Santa Barbara team has developed activity profiles and a catalogue of behaviours of their otters. Behavioural indications of oestrus have been correlated with urine oestrogen peaks. A full report on their work is due later this year, and may be obtained by contacting them. They are hopeful that they will receive continued funding to expand upon this work.

Pair-Bonding

Asian small-clawed otters are monogamous and both partners share in cub-rearing duties; they are also highly selective in choice of mates. Mate selection and pair-bonding is being investigated at the otter facility called Otter Haven, in South Carolina. Here one breeding pair of Asian small-clawed otters has produced three litters, mostly females. A male from the San Diego Zoo, accompanied by Connie Carson, is being shipped to South Carolina for this experiment. Dr. Cynthia Bennett, Dr. Shirley McGreal and Ms Carson will quantify the Introduction procedure when this male is given the choice of pairing with one of seven female siblings. A report on this introduction will be presented at the 1986 AAZPA conference.

Genetics

Dr. Robert Lacey (Brookfield Zoo, Brookfield, Illinois 60513) and Pat Foster-Turley (Marine World-Africa USA, Vallejo, CA 94589) are collaborating on an electrophoretic analysis of blood obtained from a sample of 66 North American river otters (*Lutra canadensis*) collected in Louisiana and being released in Missouri. These results will give us an otter baseline to compare to captive populations of Asian small-clawed otters. All zoos with Asian small-clawed otters are requested to procure blood samples from their animals, if they must be anaesthetized for other medical reasons. As the wild history of most captive Asian otters is unknown and individuals may have originated from such disparate locations as Thailand, Borneo and the Philippines, some of the reproductive failures observed may have a genetic basis. Depending on the results of the initial analysis of North American otters, and any samples obtainable from captive Asian otters, more blood samples may some day be collected from Asian otters in the field. Anyone with electrophoretic information on any otter species is requested to contact Pat Foster-Turley.

Studbook

The North American regional studbook for Asian small-clawed otters has been transferred to Susan Engfer (Santa Barbara Zoo, Santa Barbara, CA 93103) who plans to expand it within the year to an International version. Susan Engfer requests that anyone with information on Asian small-clawed otters in non-US zoos please contact

her. She needs information on each individual animal (name; identifying number; parents, if known, if wild-caught, then location of origin; birthdate; location where this animal is now, and has been in the past, with dates of transfer; and any unusual information on this animal). The studbook is a useful tool for all captive animal managers and it can use your assistance. You can obtain a copy of the current studbook by writing to Ms Engfer.