

Artificial reefs off Monaco coast

An experiment in an area off the coast of Monaco, once teeming with local species of fauna but since deserted, seems to have produced quite conclusive results. The underwater reserve was set up in 1976 by the Monaco Association for Nature Protection as a showcase for the only Posidonias plant communities found in the waters of the principality. The depth in the 50 hectare reserve ranges from 2 m to 35 m.

The ban on fishing and restrictions on motor boat use have combined to allow the few species still able to live in the zone to reproduce, while other species have been enabled to return. However, spectacular results have been obtained by sinking, at various depths, artificial reefs composed of different materials, such as natural rock, building materials and concrete slabs. The reefs were soon colonised by abundant vegetation and have attracted many fish species, including *Sparus auratus*, *Diplodus sargus*, *Scopaena serofa*, *Coris julls*, *Chromis chromis* and *Labrus tardus*.

Malayan sun bear births at Woodland Park

In November 1980 a baby Malayan sun bear was born at the Woodland Park Zoo, Seattle, USA. Unfortunately it died two days later in the nursery where zoo staff had tried, in vain, to keep it alive. But now the zoo has a second chance, and the prospects are much brighter.

On December 18 the zoo's other female sun bear gave birth to a cub. She had been placed in a secluded maternity den to minimize stress and increase the chances of her caring for her new offspring. To interfere as little as possible, zoo staff have installed a small television camera in the maternity den, and observed mother and youngster on closed-circuit TV. Bear-keepers and public alike were thus able to monitor the bears' progress without disturbing them.

The November birth marked the first time that a sun bear had ever been born at Woodland Park Zoo. It is a rather rare

occurrence for any zoo. Sun bears are highly endangered and critically threatened both in the wild and captivity. The more recent birth is greeted with cautious optimism.

If everything proceeds as hoped, mother and child should emerge from their den in the spring.

Through a grant from Transamerica Corporation, Woodland Park's Feline House will soon be spruced up with an attractive array of graphics showing and telling visitors about the zoo's cats. The stunning artwork was done by Gretchen Daiber.

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UK rhino exchange

Paignton Zoo, UK, reports an interesting exchange of rhinos. "At the instigation of the Zoological Society of London we have sent away our young adult male black rhino, 'Jaspa', on breeding loan. He is to be wed to the elderly female from Bristol Zoo. Both were to go to Chester Zoo which has commodious quarters lying vacant.

Fearing the dangers inherent in all movements of large animals, we agreed with the director of Bristol Zoo for him to send his female to us. This would have involved one shorter journey, rather than two longer ones. We proposed to build a second yard to our rhino quarters to allow for segregation when necessary. However, we could not get this agreement ratified, so we reverted to the earlier proposal and sent 'Jaspa' away to Chester, which was in fact his birthplace.

So that we should not be left with an empty exhibit, the Zoological Society of London kindly offered us on deposit a pair of unrelated, three-quarter-grown white rhinos in return. They also supplied the transport and the expertise for the transfer. Although we had cared for rhinos for several years, we had not had experience in sedating and crating them.

On 30th June 1981 the two white rhinos arrived from Whipsnade. Those in charge decided to release them out of their crates backwards. However, the first one objected, and it took several

hours to persuade it right back into its new house. The next move was to sedate our 'Jaspa', get a stout rope over his horns and snout and thread it out through the door and through the crate outside.

Then a revival jab in his backside from the Whipsnade vet, heaves from behind by him and our own vet, and an almighty tug from a posse of men on the outer end of the rope lured 'Jaspa' into the crate. The crate was then swung by a portable crane over the high wall and onto the lorry. The patient second white rhino was then swung off the lorry, up and over into the yard. This time we insisted on releasing it forwards from the crate into the house, into which it went quite readily.

The newcomers were nervous for a few days, but are getting on well and gradually showing themselves more. We are most grateful to London and Whipsnade for their generous help. We were relieved to hear of 'Jaspa's' safe arrival at Chester Zoo the next day. It is to be hoped that he will not have to wait too long for his bride from Bristol.

ABWAK Newsletter

Bronx cow gives birth to gaur

Flossie, a black and white Holstein resident at the Bronx Zoo, New York, must have been one very surprised cow. Last year, after a gestation of 308 days, she gave birth to a 73 pound baby gaur — a wild ox native to India — and wildlife specialists everywhere cheered. The birth marked the second known successful use of a domestic animal as a surrogate mother for a completely different wild species, and it could increase the survival chances of other endangered animals.

Flossie was a participant in the zoo's project, headed by Dr Janet Stover, to test embryo transferral, which could produce six to eight gaurs a year from one mother gaur, instead of the normal one. The method involved giving prostaglandin injections to four cows and a female gaur to synchronize their reproductive

cycles, stimulating the gaur to produce several eggs and transferring an embryo into the cows' uteri.

Interspecies embryo transfer could be added to other means of reproducing animals in captivity, such as sperm banks, in vitro fertilization, artificial insemination and intraspecies transfer of frozen embryos. But the method involves difficulties, such as selecting species of similar size, with similar reproductive cycles and hormonal systems. The other successful interspecies transfer occurred when a mouflon, a wild Sardinian sheep, was born to a domestic sheep at Utah State University.

New York Times

Four rare wildfowl studbooks started

The Wildfowl Trust in Slimbridge, England, is initiating studbooks for the following four rare species: Bewick's swan, Aleutian Canada goose, spotted whistling duck, and white-winged wood duck. Although all identifiable owners have been contacted with questionnaires, any other owners are requested to participate. The following data is requested: (1) The inventory of each species held on 31 December 1980, including their history, identification (with house names included for Bewick's swans) and, when possible, their pairings. (2) All subsequent moves or changes in inventory after 31 December 1980. Include any mortality. (3) Breeding records for each species after 1 January 1980. This data should include the band or ring numbers of all breeding pairs, the laying date of the first egg of each clutch, the number of eggs per clutch, the number hatched per clutch and the number raised per clutch. The sex and band numbers of all raised young should be included. (4) It is suggested that all registered waterfowl be banded or wing-tabbled. If an old band is replaced, please note and advise the studbook keeper of both old and new numbers. The Wildfowl Trust will gladly help provide suitable bands if necessary. (5) An annual report should be sent to the Wildfowl Trust at