Example for a slender loris air transport crate

Built at Ruhr University Bochum.

Fig. 1: cross-section through a crate with second cage inside, frontal view



attached to the box (edges bent down to protect the animal's fingers and toes when it stand on it)

Because of the high susceptibility of lorises to stress problems, a crate allowing the animals to travel in dim light or darkness, to hide behind some cover and to cling to some substrate under the ceiling (following a flight intention as high up as possible) is helpful.

The example shown in figure 1, in a smaller crate, size ca. $57 \times 37 \times 36$ cm, provides space for one animal only, with a wiremesh entrance door (mesh size 1,2 x 1.2 cm) on one side of the inner box. A dark curtain of heavy material is attached to the lattice of the door of the outer crate from outside, keeping the light out, but allowing to be raised from outside for a quick control. The cleft between inner box and outer crate is closed with a layer of foam rubber on the entrance side to avoid that an aimal squeezes into the interstice.

Crate for shipping several animals: see also below.



Fig. 2: Narrow wiremesh (4 x 4 to 12 x 12 mm): with a single layer (left) finger and toe lesions due to bites may occur. Double wiremesh (right) is safe.



Fig. 3: Wider wiremesh: the whole arm can be, and usually is, stretched through

Danger of accidents due to inadequate crate furnishing:

Clinging to wiremesh wile an opponent is located on the other side may lead to fighting and severe finger and toe lesions, see fig. 2. Under stressful conditions, even otherwise calm lorises may suddenly become aggressive. With increasing mesh width, an entire arm may be stretched out, get hurt or come within reach of conspecifics in the next cage (fig. 3). In addition, threads or other items outside the cage may be pulled in, and the animal may get entangled. At Ruhr-University, mesh sizes of 1.2 x 1.2 cm to 2 x 2 cm never caused any problems. In wiremesh with a mesh width of 2.5 x 2.5 cm and 2.5 x 5 cm, on three occasions slender lorises got stuck as shown in figure 4. This type or wiremesh is not recommended for loris cages or crates. Information about cmparable problems with slow lorises or pottos is lacking.

Clefts becoming narrower towards one end may also be dangerous. An open slender loris hand can be stretched through a cleft of about 7 mm, a fist through a cleft of 8-10 mm; after a rotation of 90° , the same fist needs about

12 mm space to be drawn back. In one case a loris, panicking when unable to withdraw a hand from a tapering cleft, was caught for some time and hurt.

Doors should be closed well; lorises can squeeze through narrow clefts, and they may develop some skills in opening doors and shutters.





Fig. 4: Accident in a cage with mesh-width 2.5 x 2.5 cm: a playful animal has woven an arm through the wire and got caught

Fig. 5: Hands may get trapped in tapering clefts

Tip:

Lorises can be trained very well to enter a cage trap for a reward (locust). Catching a loris this way for transfer into a crate is certainly less stressful than catching the animal with the hands. At Ruhr University, the crate can be placed at the end of a passage system, allowing the loris to explore the crate for several days before transport. Placement of the crate within the cage, near the ceiling, if possible, with some food offered inside, should also allow the loris to become familiar with it.

Some moist food in the crate (pieces of fruit) may help to reduce transport stress and, on longer transports, thirst.



Fig. 5: a larger, variable crate for several animals: inner box seen from above

Idea: for transport of up to four animals a larger crate may be built, based on a commercially available crate for larger dogs. The second box inside has two entrance doors on each side. and covings forming slots in the middle of each side, for inserting walls or other elements from above (lid can be removed).

With several different wall elements which can be removed or exchanged, the box inside can easily be changed into one or two larger compartments with or without a sort of sleeping box, into a crate for two breeding pairs (solid wall separating the pairs, mates of pairs in visual and olfactory contact through double wiremesh walls) or a box for four animals totally separated by solid walls. For mothers shipped with a weaned juvenile, double wiremesh may also be the adequate way of separation.

This type of crate requires an inner box which can be easily removed from, and inserted to, the outer crate for leaving the animals in, and some holes for visual control in the hind part of the outer crate, covered with dark curtains to keep the boxes dark inside.

This information is available for free download in the Conservation Database for Lorises and Pottos: http://www.loris-conservation.org/database/

Any help fur further improving the material, information about transport problems or problems with stress due to environmental change in lorisids would be appreciated.

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