

LETTERS

Assessing the quality of relationships in rehabilitating lar gibbons (*Hylobates lar*)

Sir,

Hereby we would like to describe a small project on rehabilitation in gibbons.

At the Gibbon Rehabilitation Project (GRP) Phuket, Thailand, lar gibbons (*Hylobates lar*) that have lived their youth as pets are being rehabilitated, with release as the final aim. Rehabilitation consists of minimizing human contact, encouraging conspecific contact, and giving appropriate food and opportunities to brachiate. After having been caged at the project for a period ranging from a few months to a few years, gibbons which are thought to have a good chance of surviving in the wild are moved to one of three islands near Phuket. As a semi-natural environment is thought to facilitate the process of rehabilitation, the islands are used as an intermediate between the cages and the wild. As a rule, only pair-bonded couples and groups of single (mostly immature) gibbons are moved to the islands. Pair-bonded couples because only they have a fair chance of surviving in the wild (Brockelman 1990); single gibbons because this allows them to choose their own partners.

To date, all reintroductions in the Phuket rainforest and many releases on the islands have failed. Important reasons for these failures were: i) that adult couples which were thought to be pair-bonded, ie by subjective impressions, separated after release; and ii) that individuals were ostracized from a group of single gibbons after introduction on an island. Thus, most failures to release gibbons in a (semi-) natural environment were due to poor quality relationships between gibbons released together.

At the GRP, the selection of animals for release on the islands had thus far been more or less arbitrary (ie based on subjective impression). There was no objective way of assessing the rehabilitation

status in general, and the quality of relationships in particular, of the ex-pet captive gibbons.

It was therefore decided to conduct a pilot study which consisted of trying to establish an objective way of assessing the quality of relationships between these animals, while they were still living in captive conditions. In the wild, pair-bonded couples that hold a territory duet, copulate and show mutual grooming (Bennett 1992; Brockelman *et al* 1974; Leighton 1986). Accordingly, these behaviours were taken as indicative of the presence of a pair bond in the captive adult couples (Geissman & Orgeldinger 1997; Mootnick 1997). Mutual grooming and the absence of severe conflicts were taken as indicators of a good relationship in groups of single gibbons (Morin 1994).

Data on dueting, copulating, (mutual) grooming and agonistic behaviour were collected in 50h over a 6-week period in the winter of 1997. 14 gibbons were observed (three adult couples of which one had an infant, and two groups consisting of four [group A] and three [group B] single gibbons). These gibbons were thought by the management to be suitable for future release.

The data indicate that all adult couples were pair-bonded and not merely tolerating each other. Dueting occurred in all three couples. Copulations were only absent in the couple with the lactating female. Grooming was observed in all couples. In couple, the females tended to groom males more often than vice versa. Agonistic behaviour was hardly ever seen in the couples.

The relationship between the group A single gibbons seemed to be stable enough not to expect any individuals to be ostracized from the group, should they be moved to a semi-natural environment. Grooming in some relationships of this group was highly asymmetric. Agonistic confrontations were rare.

This was, however, not the case in group B, where two individuals that had been raised together and who obviously had a strong bond spent most of their active time harassing the third group-member. The fact that the conflicts never escalated may be due to the big enclosure they were kept in (6x6x6 m), allowing them to avoid each other.

Previous failures of reintroducing gibbons into a (semi-) natural environment were partly due to the fact that the quality of the relationships of the to be released gibbons had only been poorly assessed. To reduce the number of these failures two steps are therefore necessary.

Step 1: assessing the quality of relationships objectively, ie searching for objective, reliable measures which indicate pair-bonding in adults and stable relationships in juveniles.

Step 2: assessing whether this pair-bonding status or stability in relationships can indeed predict failure or success of reintroduction.

This research has exclusively focused on the first step. Future releases will show whether this way of selecting gibbons for release produces false positives.

Monique W de Veer and Ruud van den Bos
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Welfare implications of culling red deer (*Cervus elaphus*)

Sir,

In your February issue, a paper by E L Bradshaw and P Bateson claims that on 29 August 1995 a deer was attacked by hounds belonging to the Quantock Staghounds. It was not. The video footage shown on television, and upon which this claim is based, was stopped at the point the hounds were apparently on top of the deer. The tape went on to show hounds over running the deer without attacking it. I would be grateful if you would set the record straight on this.

Nigel Muers Raby
Chairman
Quantock Staghounds

Dr Bradshaw and Professor Bateson reply:

We replayed slowly the video of the hounds catching up with the stag which fell during a hunt on 29 August 1995. After many viewings we were convinced that the hounds did bite the stag, although we have stated repeatedly that the control of hounds is generally impressive. Since we submitted our paper to *Animal Welfare*, a much clearer case of hounds biting a stag has