

Pan continuity: bonobo-chimpanzee hybrids.

Hilde Vervaecke^{1,2}, Jeroen Stevens^{1,2} Linda Van Elsacker^{1,2}

¹University of Antwerp, Department of Biology, Universiteitsplein 1, B-2610 Wilrijk, Belgium, bisonobo@skynet.be.

²Royal Zoological Society of Antwerp, Centre for Research and Conservation, K. Astridplein 26, B-2018 Antwerp, Belgium.

INTRODUCTION

From historical accounts it appears that natural populations of bonobos and chimpanzees have been allopatric since their phylogenetic separation. There are no accounts of hybridization under natural conditions. There is, however, evidence for interbreeding between bonobos and chimpanzees in captivity.

METHODOLOGY

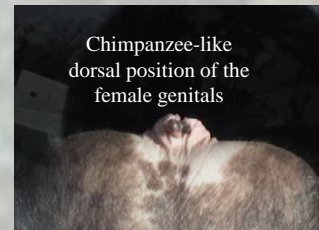
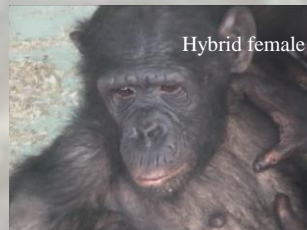
We briefly observed and filmed 7 bonobo-chimpanzee hybrids (see table)

| Ind. | Sexe | Date of birth | Father | Mother |
|----------|--------|---------------|--------------|------------------|
| Blois | Male | 21-03-1991 | Bonobo Congo | Chimpanzee Julie |
| Tibie* | Female | 5-12-1991 | Bonobo Congo | Chimpanzee Clara |
| Diana | Female | 10-03-1992 | Bonobo Congo | Chimpanzee Julie |
| Adam* | Male | 30-07-1992 | Bonobo Congo | Chimpanzee Clara |
| Max* | Male | 07-05-1992 | Bonobo Congo | Chimpanzee Julie |
| Clara* | Female | 27-10-1994 | Bonobo Congo | Chimpanzee Julie |
| Caroline | Female | 6-8-1999 | Bonobo Congo | Chimpanzee Julie |

RESULTS

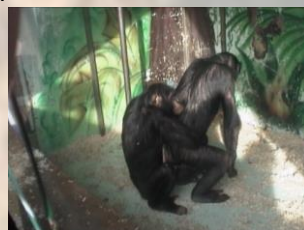
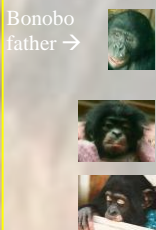
1. Anatomical features:

Among the 7 hybrids there was clear individual variation in degree of expression of typical chimpanzee- or bonobo features. In each individual there were anatomical features reminiscent of both of the parental species: the specific bonobo-like pink coloration of the lips, the hairstyle and slender body-build or the chimpanzee-like dorsal position of the female genitals, more sturdy body build and prognathism.



2. Behaviour:

Four hybrids (marked * in table) - 2 males, aged 10 and 9, and 2 females, aged 10 and 8 - were observed (6.5hrs). We observed mostly female oriented interactions, including grooming, play, approaches and intersexual ventro-dorsal sex. There was one female coalition against the males. The individuals lip-smacked while grooming and performed swaggering displays. The hoots were like chimpanzee pant-hoots with an introduction, build-up and climax in a higher pitched bonobo tone and more "e" than "o" sounds.



CONCLUSIONS

Studies on Pan in the seventies and eighties emphasized the discontinuity between the two species, contrasting the male-dominated, aggressive nature of the chimpanzees with the female-oriented, peaceful nature of the bonobo. Since the nineties, the continuity among Pan is increasingly being documented. The existence of hybrids challenges our tendency for binary thinking and points at the conceptual relativity of the species gap.

ACKNOWLEDGEMENTS

The first author is a post-doctoral researcher funded by the Fund for Scientific Research, Flanders [FWO]. The second author is supported by an IWT-research grant. The CRC thanks the Flemish Government for structural support.