

NON CONCEPTIVE SEXUAL BEHAVIOUR IN *INIA GEOFFRENSIS HUMBOLDTIANA*

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INTRODUCTION

Non conceptive sexual behaviours between animals, including same-sex interactions, are activities in which neither partner obtains conception. Social functions proposed for these behaviours in mammals include practice, communication or appeasement in tension contexts. Such behaviours are well studied in bonobos, seals, whales and bottlenose dolphins. An opportunity to investigate such socio-sexuality in Orinoco river dolphins (*Inia geoffrensis humboldtiana*), was provided by observation of two adult males hosted at Duisburg Zoo, Germany. The aim of the study was to assess the quality and amount of sexual behaviour components and pointing out age-related preferences.

METHODS

Two Orinoco river dolphins (Table 1) were systematically observed for four consecutive weeks in May 2006 at Duisburg Zoo (Germany).

Data were collected in a total of 120 sessions lasting one hour each (60 hour/subject), and analysed by means of Observer software (Noldus) to identify frequency and duration of displays. "Belly to belly swim", "genital inspection", "goose", genital rub", "erection", "penis insertion" and "fin mount" were the sexual behaviours selected for the study.

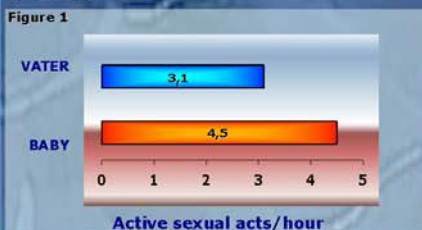
ENVIRONMENT:	SUBJECT 1:	SUBJECT 2:
Surface: 900 m ²	VATER	BABY
Capacity: 650 m ³	MALE	MALE
Built in: 2005	55 YEARS	35 YEARS



RESULTS

SEXUAL ACTIVITY

Figure 1: General levels of sexual activity showed the **supremacy of the youngest male (Baby)** with values of 4.5 active sexual acts per hour vs. 3.1 acts of the older one (Vater).



PREFERRED DISPLAYS

Figure 2: As for the choice of sexual patterns, both *Inia* clearly preferred **genital rub behaviour**, with common prior attention directed to the mate's genital area.



Figure 3: A difference between individuals appeared considering erections and penis use. In fact, while the younger dolphin showed a total of 64 erections in our study (duration: 62.1 ± 45.3 sec.), the older animal displayed only 10 acts of this sort (duration: 21.8 ± 19.3 sec.). Moreover, only Vater (60% of cases) revealed a concomitance of this act with urination and defecation.

ERECTION AND PENIS USE

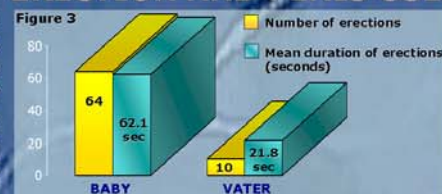
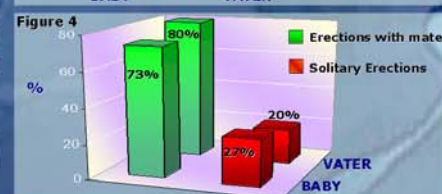


Figure 5: About the act of penis insertion, performed in a total of 30 occasions, in anus, skin folds and genital cavity, **only the younger *Inia* was active towards the conspecific**. The opposite situation never occurred.

Figure 4: Both animals showed a **positive disposition to the erection when together (>70%)**.



CONCLUSIONS

The marked directionality in sexual approaches, primarily started by the young *Inia*, together with the exposition of absolutely vulnerable parts of the body (i.e. genitals or venter) by the old individual, seems to confirm the strong social connotation of sexual behaviour in non conceptive dyads, suggesting **an involvement of these behaviours in establishing group hierarchies** instead of reproductive purposes, as has been suggested for other species.

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