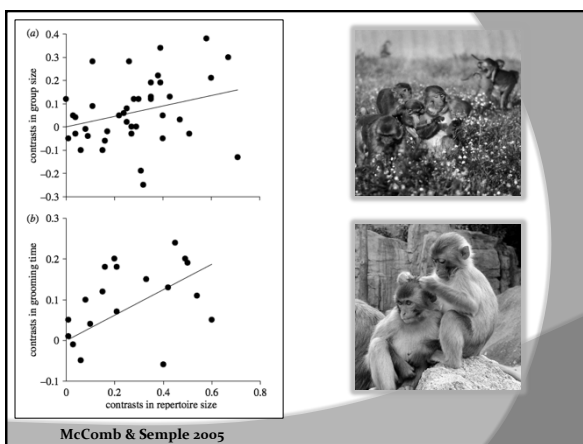
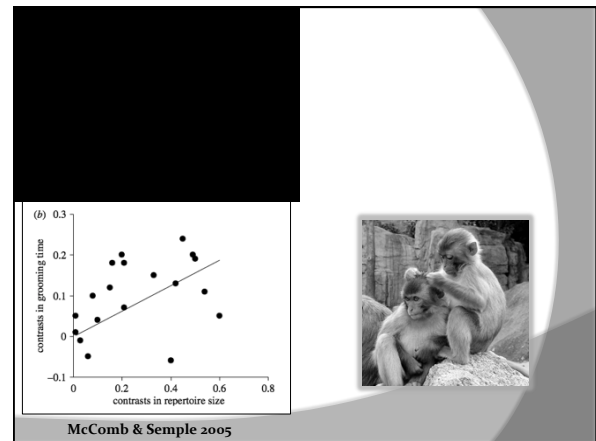
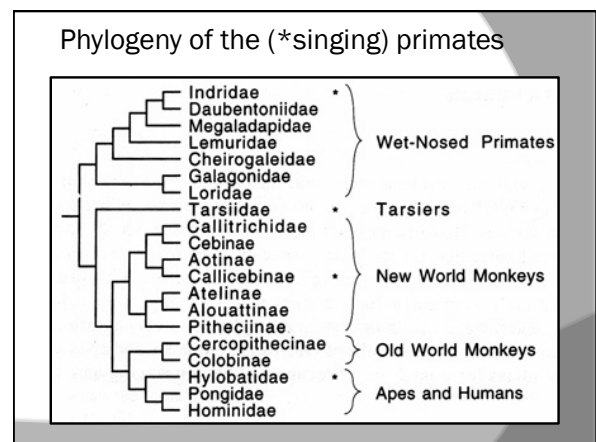
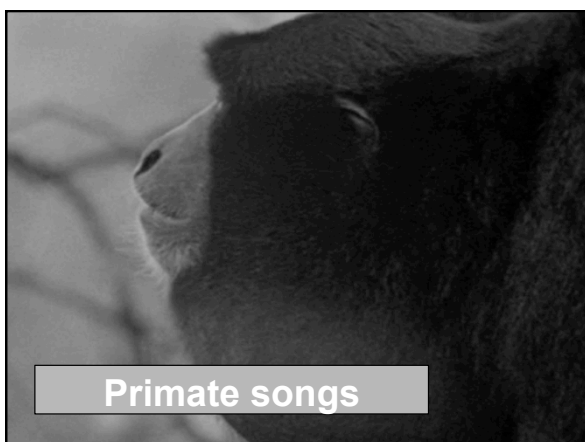
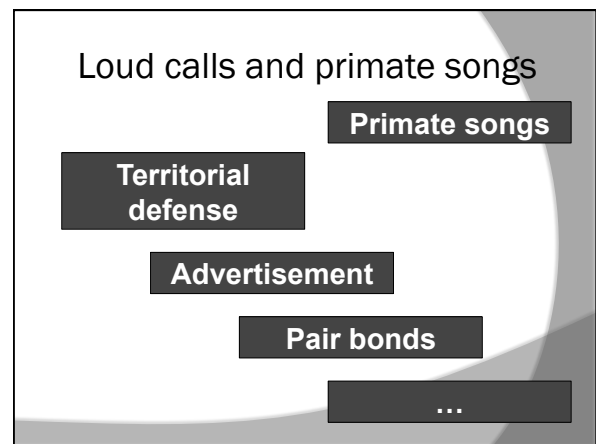
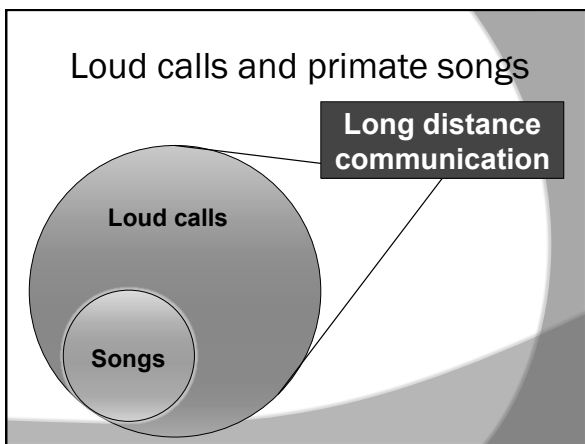
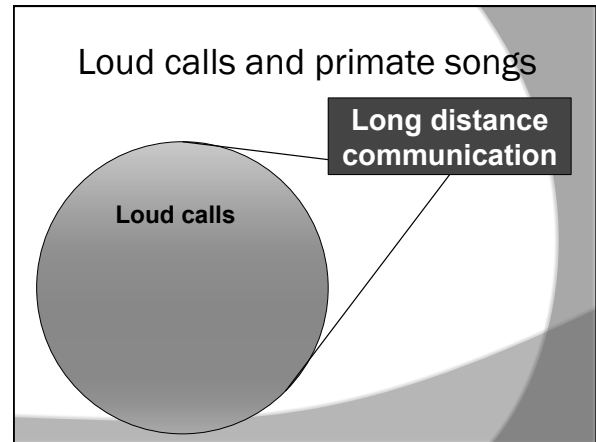
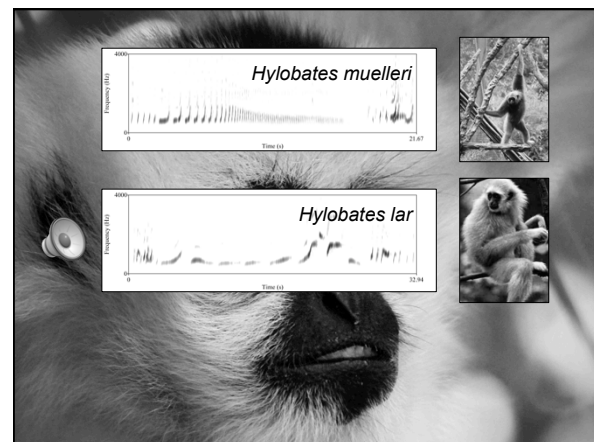
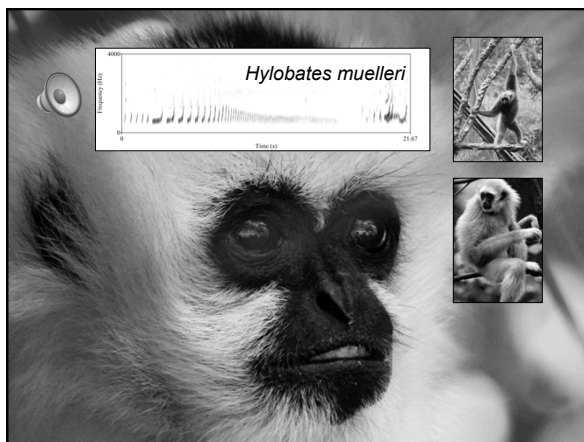
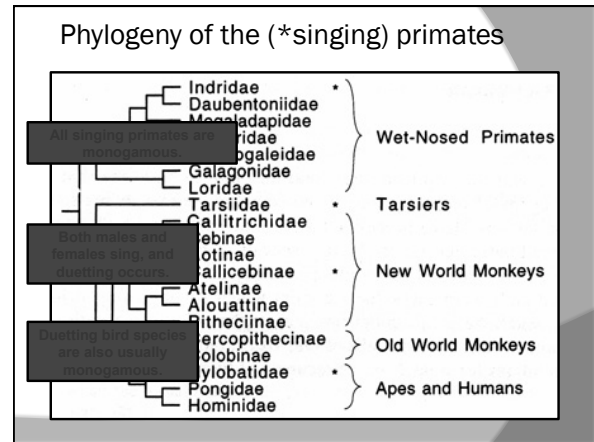
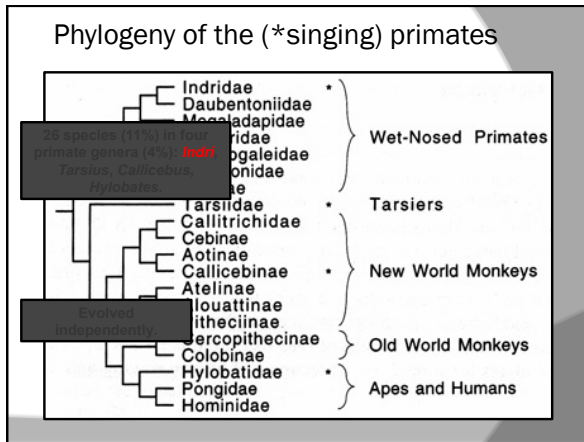


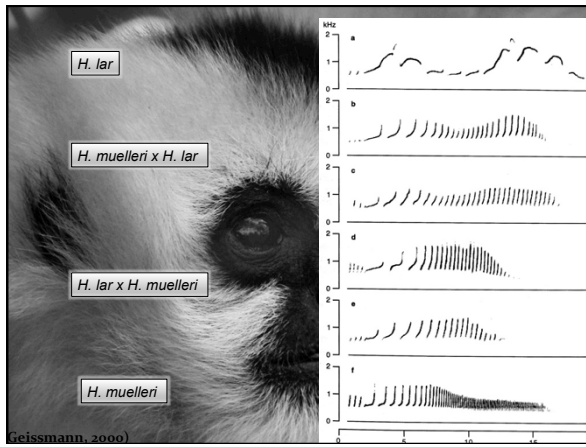
SOCIAL GROOMING

In social animals, including humans, social grooming or allogrooming is an activity in which individuals in a group clean or maintain one another's body or appearance. It is a major social activity, and a means by which animals who live in proximity can bond and reinforce social structures, family links, and build relationships. Social grooming is also used as a form of reconciliation and a means of conflict resolution in some species.




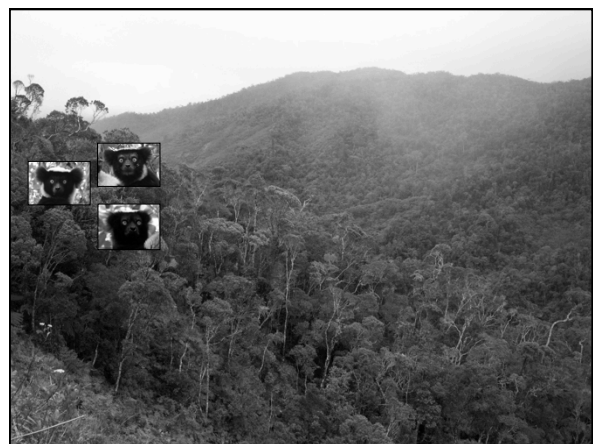
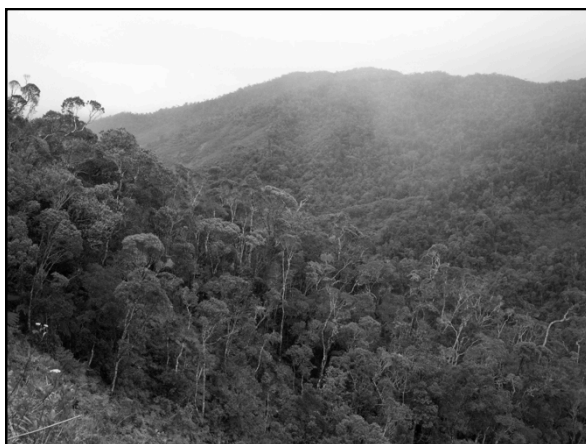






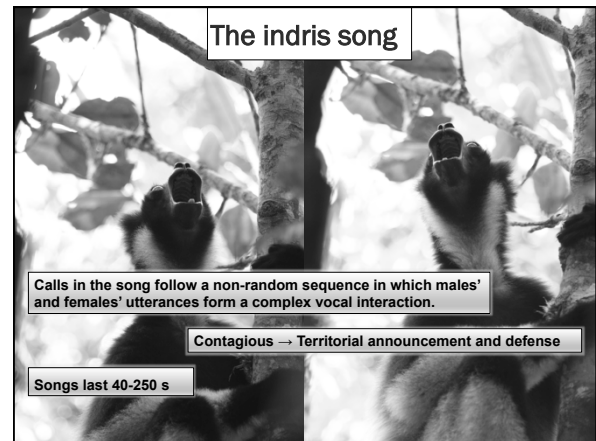
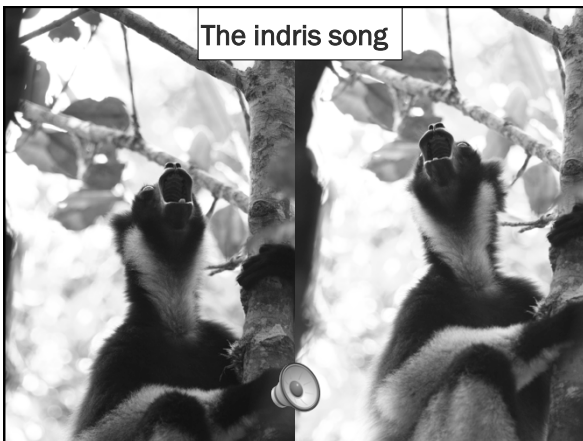
VARIATION IN PRIMATE VOCALIZATIONS AND PRIMATE SONGS: EFFECTS OF PHONATORY PROCESS, SPECIES, SEX AND INDIVIDUALITY.

Marco Gamba
University of Torino, Italy

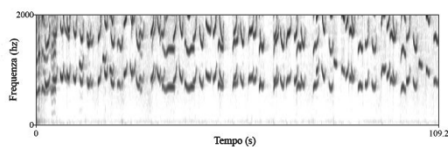





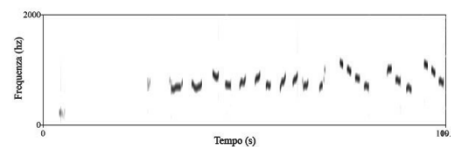
Study area and subjects



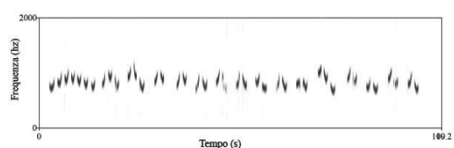
Acoustic analysis of the song



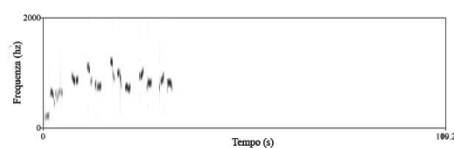
Acoustic analysis of the song



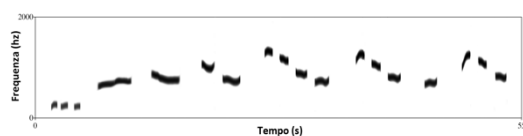
Acoustic analysis of the song



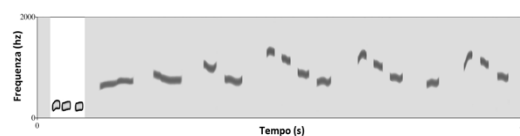
Acoustic analysis of the song



Song organization

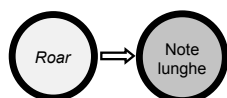
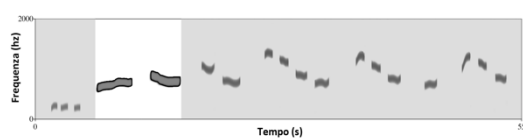


Song organization

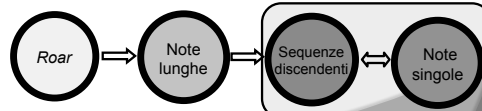
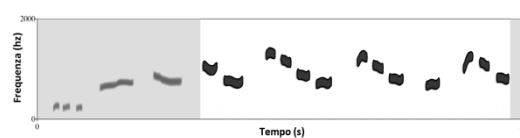


Roar

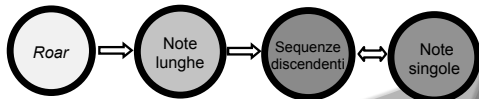
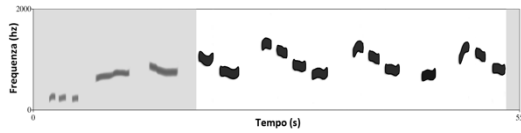
Song organization



Song organization



Song organization



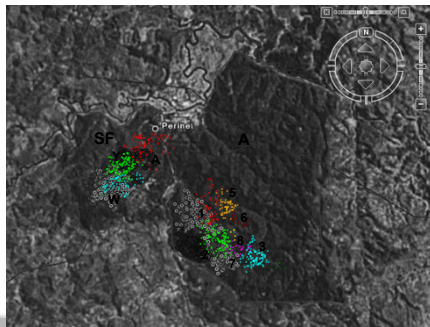
Sex differences in primate vocalizations

- human primate species both rates of vocalization and acoustic structure vary with sex [e.g. baboons (Rendall et al. 2004), cotton-top tamarins (Scott 2006) and gibbons (Geissmann 2000)].



- Sexual dimorphism is present in the vocal output of indris during the song. Contribution of males and females do not differ in total duration but males utter significantly longer, fewer notes.

Exclusive territoriality!



The indris song

- ◉ Plays a crucial role in spacing and creation of new groups
- ◉ Encodes species-, sex-, group- and individual- specific information
- ◉ Has a syntax and sometime this syntax changes according to context (Torti et al. *In preparation*)

Synchronous singing as a precursor to human language



(Merker & Okanoya, 2005; Fitch 2006; 2010)

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