

[Fletcher 2007]: phonetics reading group

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# Outline of the talk

Optimized Communication

Hearing and Sound Production

Vibrational Communication

Insects

Land Vertebrates

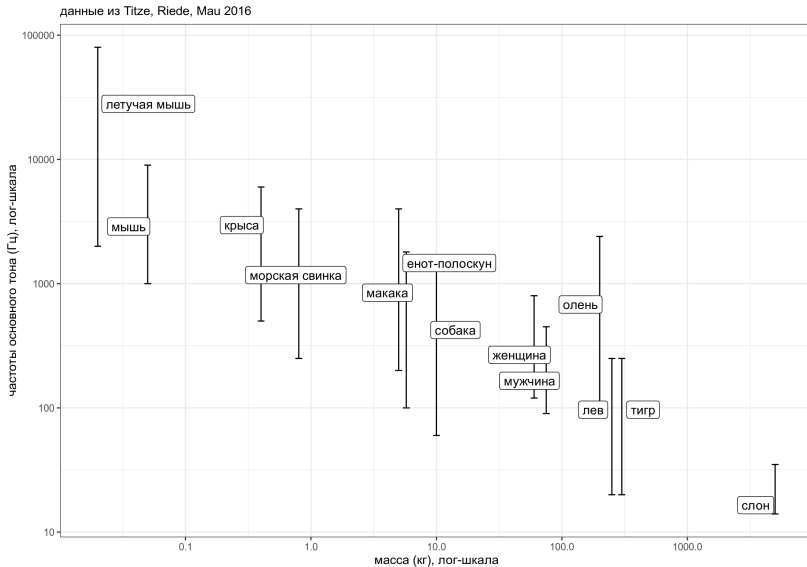
Birds

Bats

Aquatic Animals

Generalities

# mass and frequency





But some animals use some tricks!

BBC, Earth's tropical Island – Borneo (20:47)

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# Hearing and Sound Production

- Hearing is surprisingly similar
- Sound production of breathing animals:
  - non-aquatic mammals
    - exhalation through valve
  - aquatic mammals
    - moving air from one reservoir to another through the oscillating valve
- Sound production of non-breathing animals:
  - muscle-driven mechanical vibrations

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Some animals do both!

Владимир Динец (2015) Песни драконов



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Fletcher, N. (2007). Animal bioacoustics. In Rossing, T. D., editor, *Springer Handbook of Acoustics*, pages 785–804. Springer, New York.