



Red panda research in



Red Panda



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Catbear keeping since 1997

Red Panda



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Red Panda

Enclosure characteristics

- A) a large naturalistic exhibit
- B) exhibit layout and planting to emulate a natural habitat in China
- C) aesthetically appealing exhibit (through the use of a transparent perimeter, for example)
- D) a mixed exhibit featuring red pandas and Chinese muntjacs as well as white-eared pheasants and blue magpies as attractive representatives of their central Asian habitat

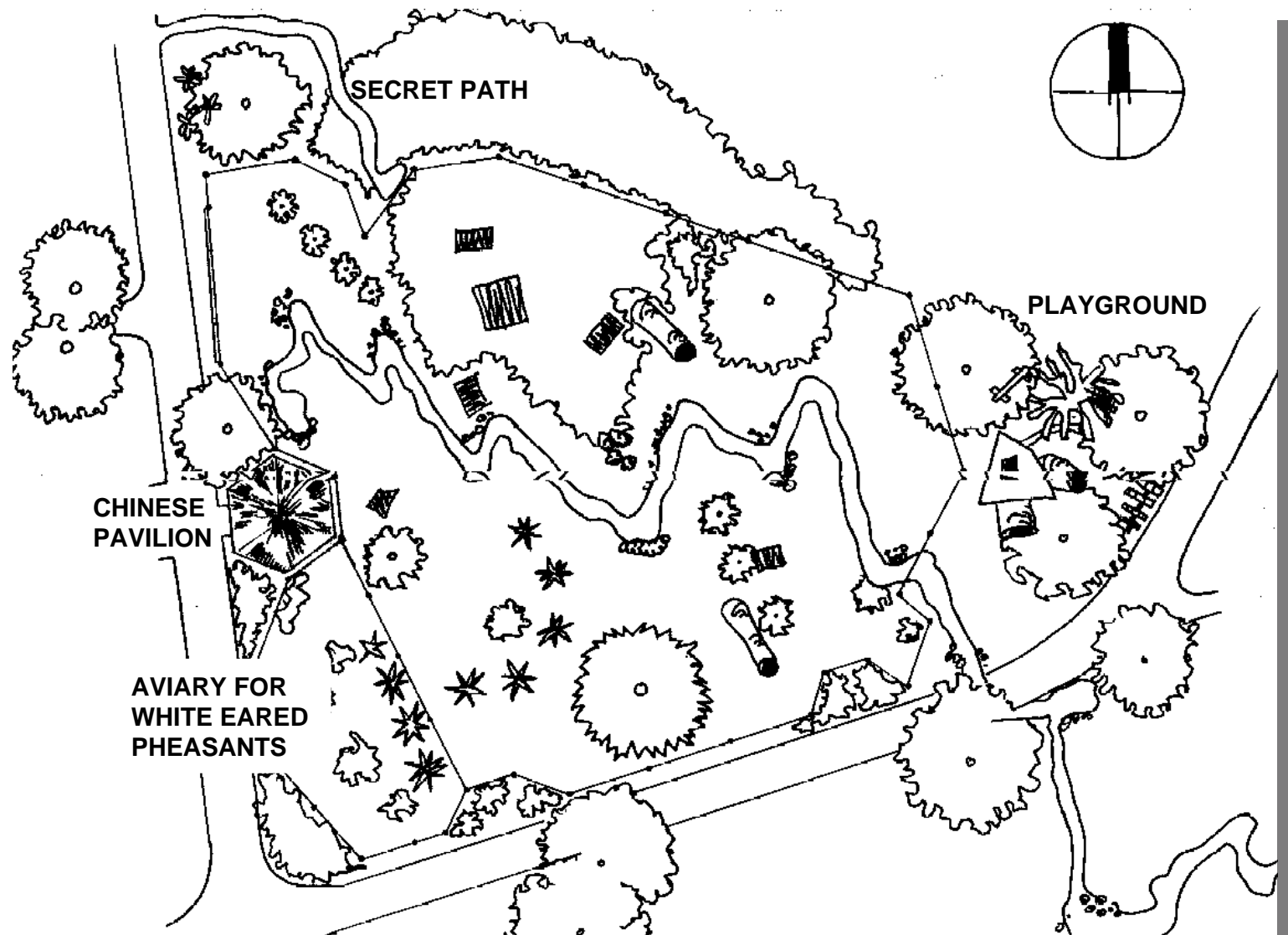


1. Enclosure for red pandas and Chinese muntjacs - 1100 m²
2. Aviary for white-eared pheasants and blue magpies - 165 m²
3. Visitor area (China pavilion, playground) - 300 m²

3



Enclosure characteristics





Enclosure - plant list

Trees:

Aralia chinensis
Davidia involucrata var. *Vilmor.*
Juniperus x media
Sorbus vilmorinii
Taxus baccata
Tilia x euchlora
Tsuga canadensis

Other Plants:

Aconitum henryi
Aconitum charmichaelii
Corydalis lutea
Ligularia dentata
Ligularia wilsoniana
M. integrifolia
Meconopsis betonicifolia
Mentha longifolia
P. odoratum
P. verticillatum
Paeonia officinalis
Polygonatum multiflorum
Primula denticulata
Rodgersia aescusifolia
Sasaella aigentea

Vines:

Clematis montana

Shrubs:

Cornus controversa` variegata
Decaisnea fargesii
Phyllostachys aureosulcata
Rhododendron camchaticum
Rhododendron canadense
Rhododendron catawbiense-hybr.
Rhododendron insigne brigitte
Rhododendron kelecticum
Rhododendron lavendula
Rhododendron oreodoxa
Rhododendron vaseyi
Rhododendron wardii` goldbukett
Sasa palmata
Sinarundinaria murjelae
Sinarundinaria nitida



Enclosure - plants

Red Panda



Davidia involucrata
Dove Tree

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Enclosure - plants

Red Panda

Magnolia x soulangiana
Tulip tree



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Enclosure - plants

Red Panda

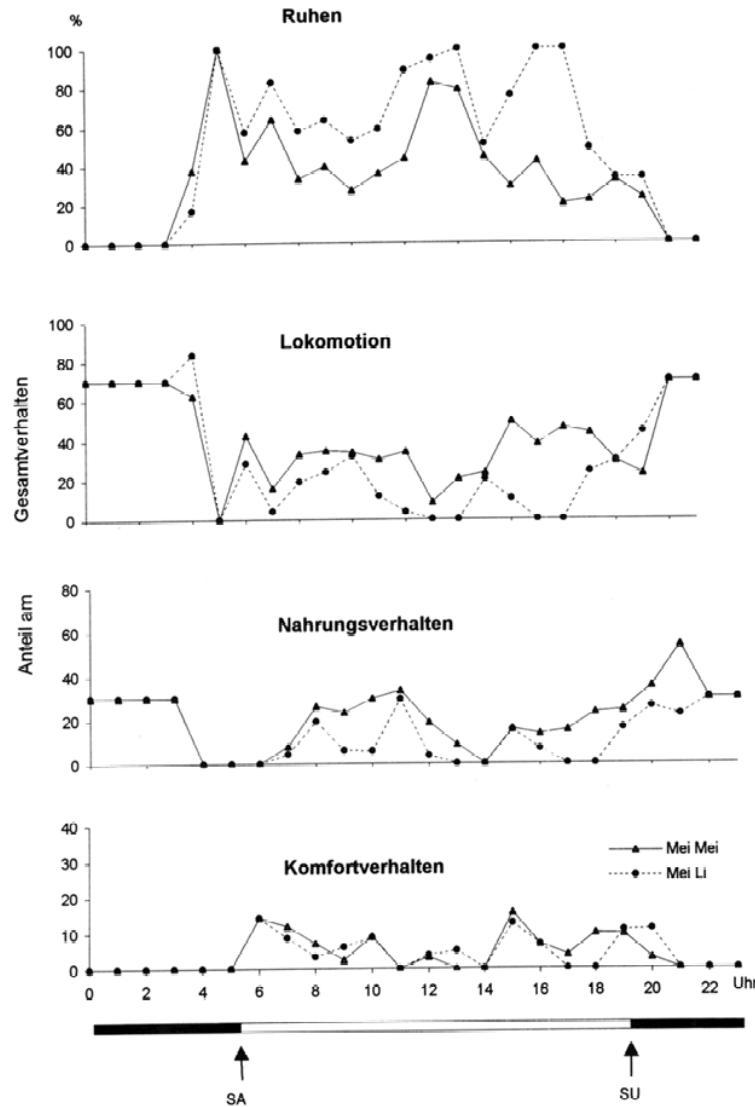
Sinarundinaria nitida
Bamboo



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Activity research in 1998



Publication 2001

Zoologischer Garten 71: 209-220

Remarks on Feeding Behaviour and Activity of Red Pandas (*Ailurus fulgens fulgens*) in a large exhibit

Anmerkungen zum Nahrungsverhalten und zur Aktivität Roter Pandas (*Ailurus fulgens fulgens*) in einem großen Freigehege

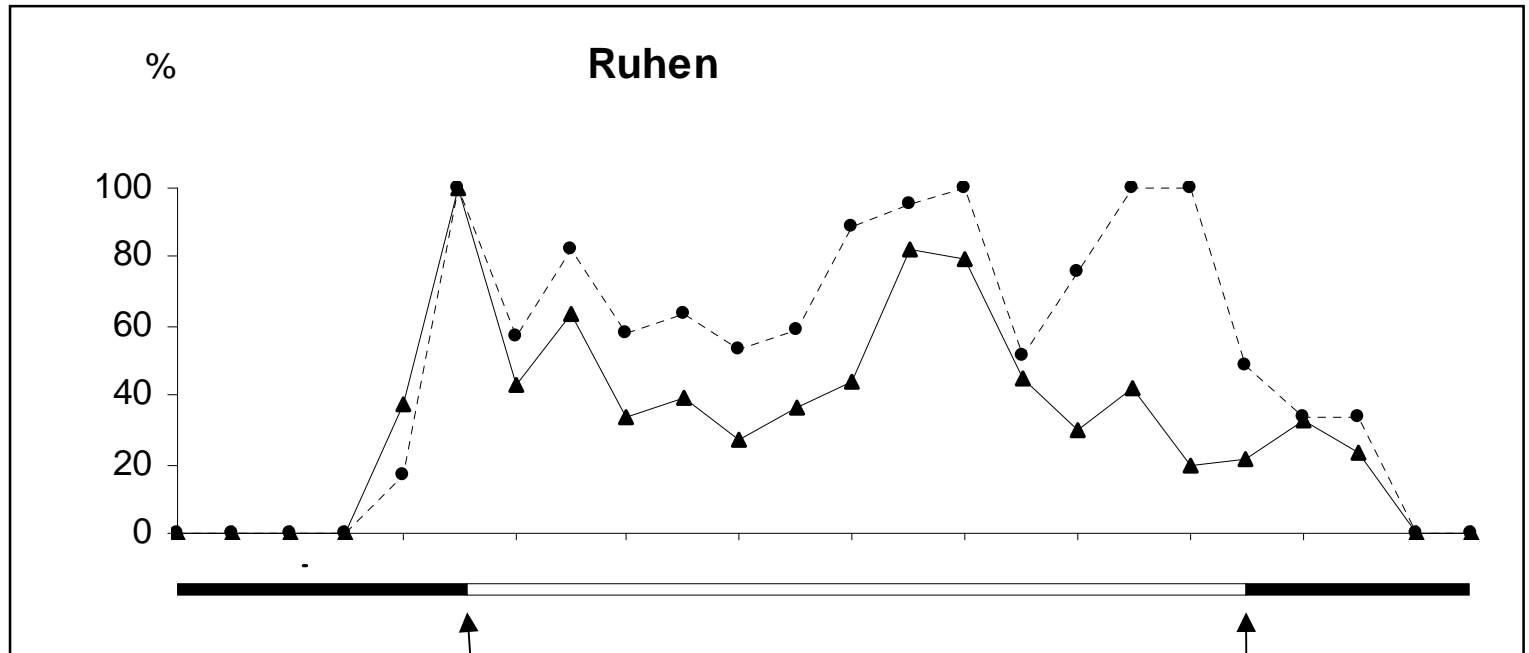
A. Gebauer, Görlitz & S. Engler, Dresden

Activity patterns of two female red pandas in August/September 1998 (SA=Sunrise, SU=Sunset)



Red Panda

Activity research in 1998

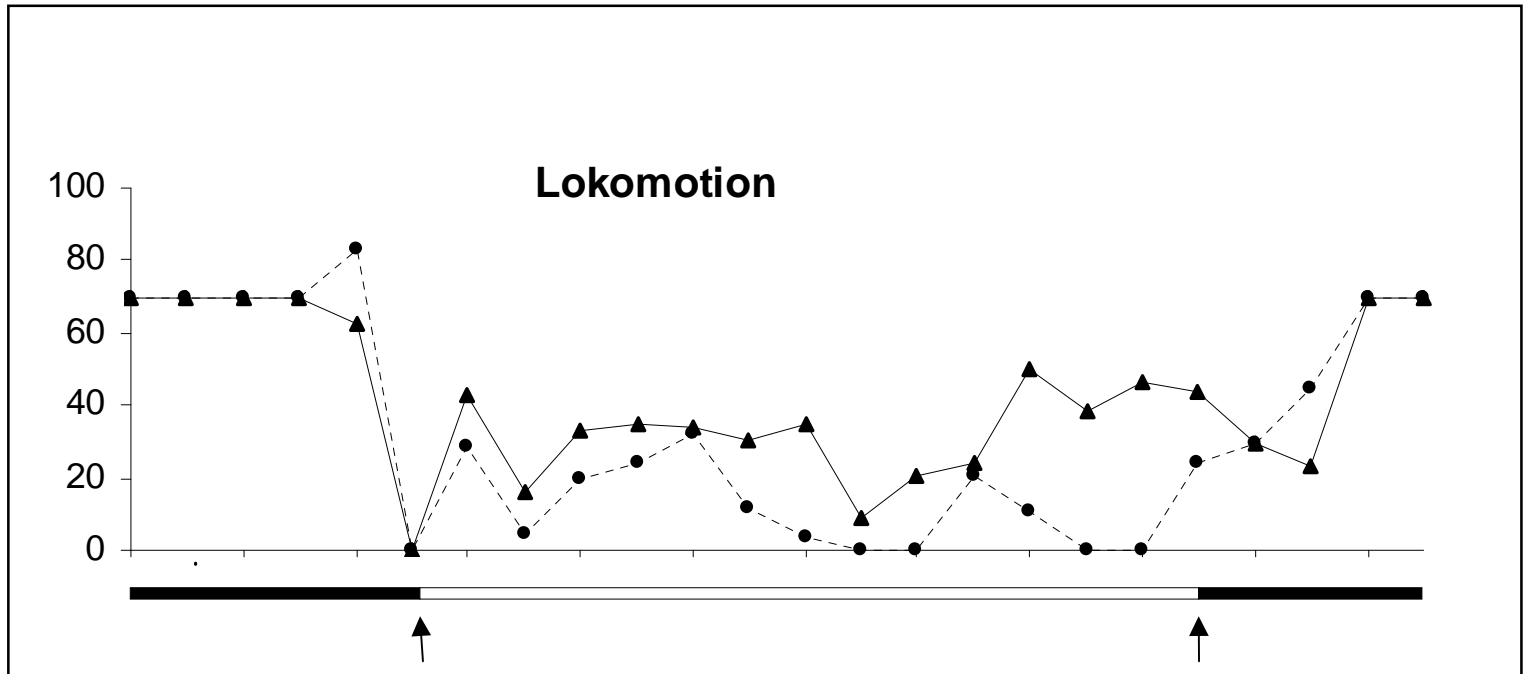


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Activity research in 1998

Red Panda



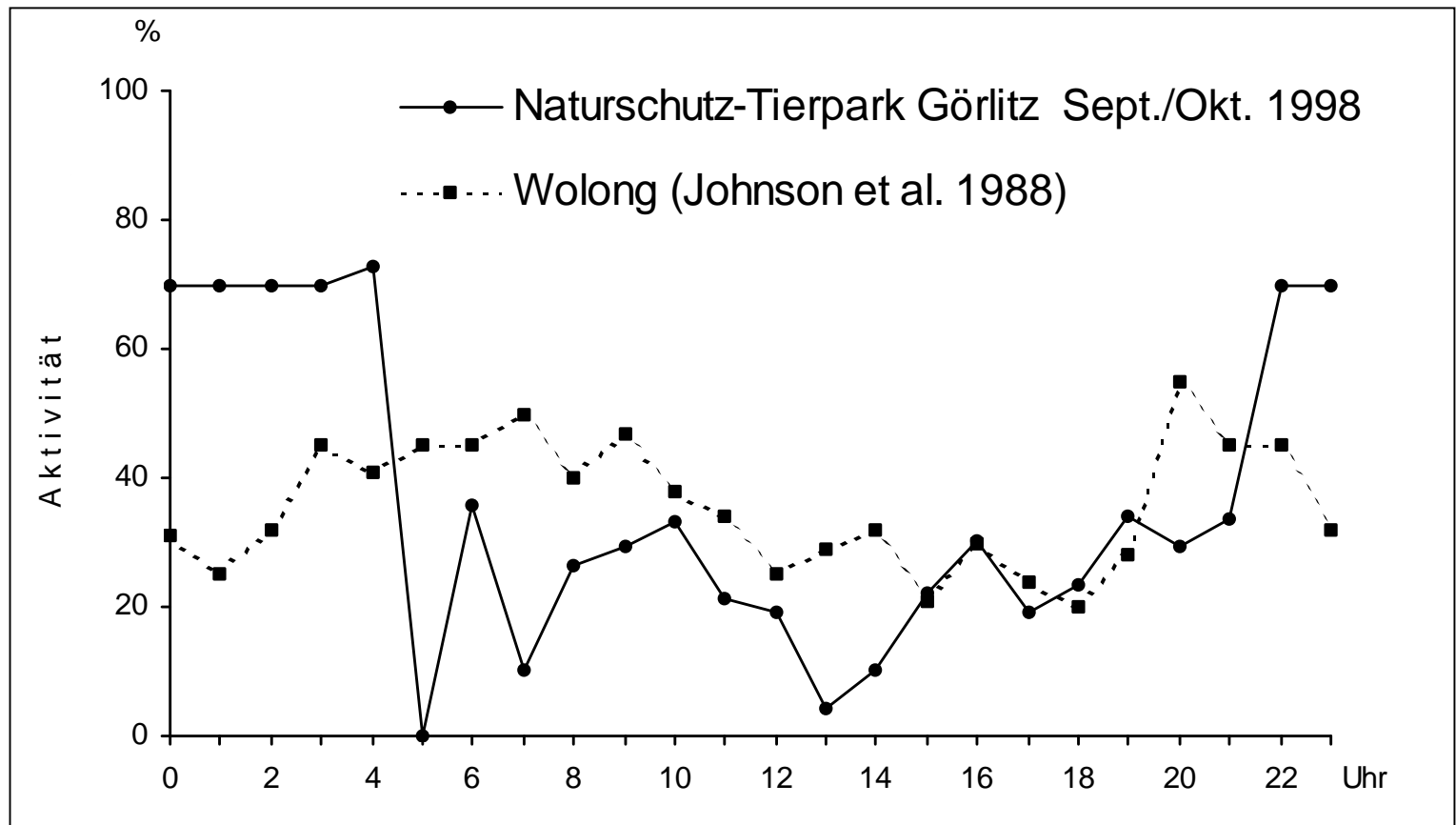
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Red Panda

Activity research in 1998

bimodal daily activity pattern, crepuscular with substantial nocturnal activity



Comparison of the activity pattern of a wild red panda (Johnson et al. 1988) in China (Wolong) with the pattern of two zoo animals in Naturschutz-Tierparks Görlitz

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First male in 2000

Red Panda



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First pairing in 2001

Red Panda



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Breeding since 2001

Red Panda



2001-2007 5 litters with 8 cubs

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2007 – BBC request

Red Panda



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Box for filming and research

Red Panda



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Birth of a female – 06/06/2007

Red Panda



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Red Panda

Continuous observations

of dam and cub behaviour between 09/06/2007 and 10/02/2008

- Video records with security camera
- Saved on a hard-disc recorder
- Recordings checked
- All behaviors noted
- Important scenes saved digitally

In addition:

- Some sound recordings
- Single observations outside den





First results

Maternal care and cub development

Red Panda



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Nest building behaviour

Red Panda

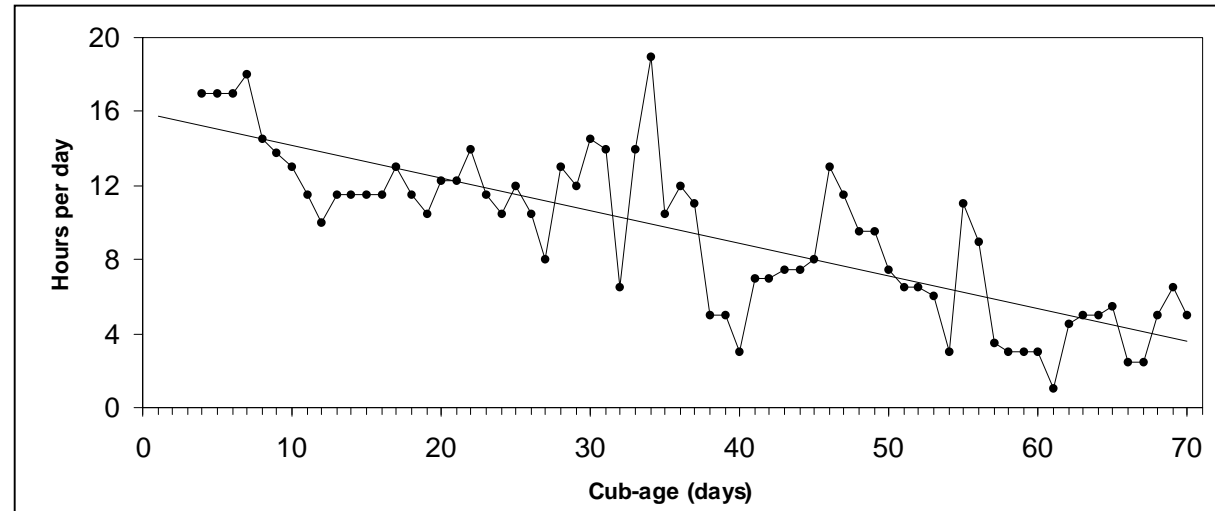


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Denning time of dam

Red Panda



65 days



138 days

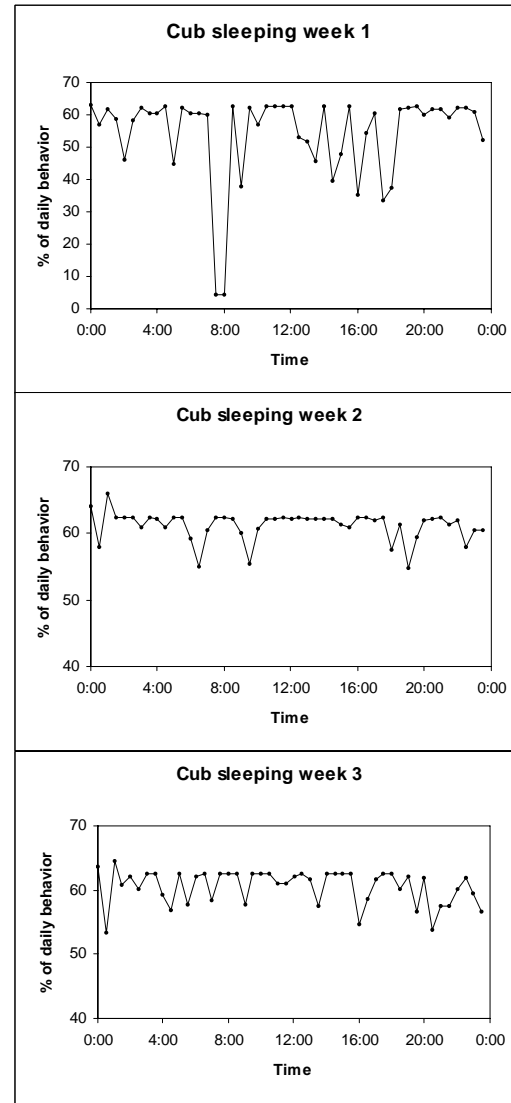
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Cub sleeping

Red Panda

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4 days



65 days

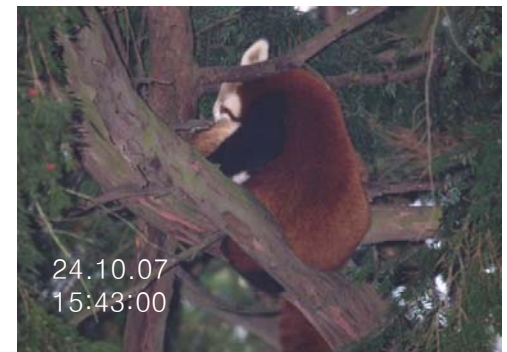
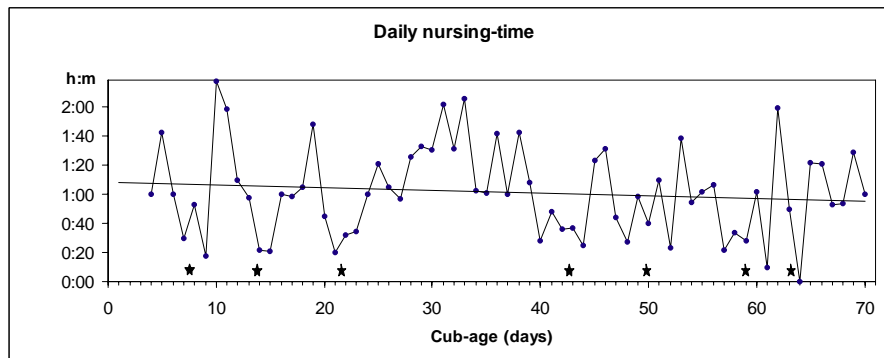
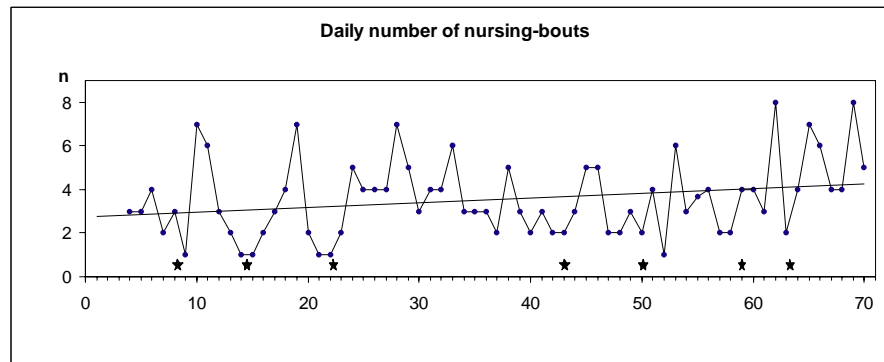
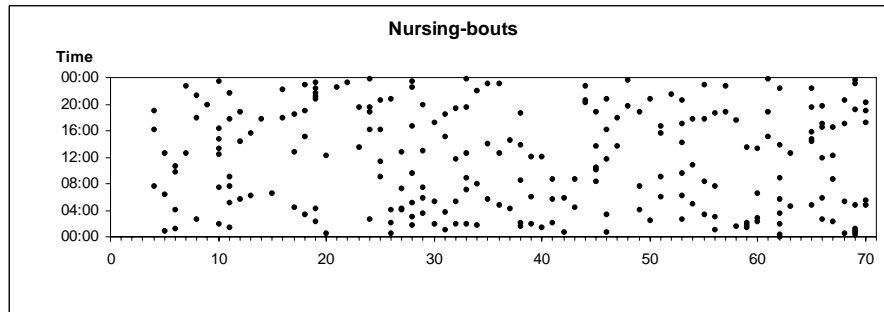


150 days



Red Panda

Nursing activities

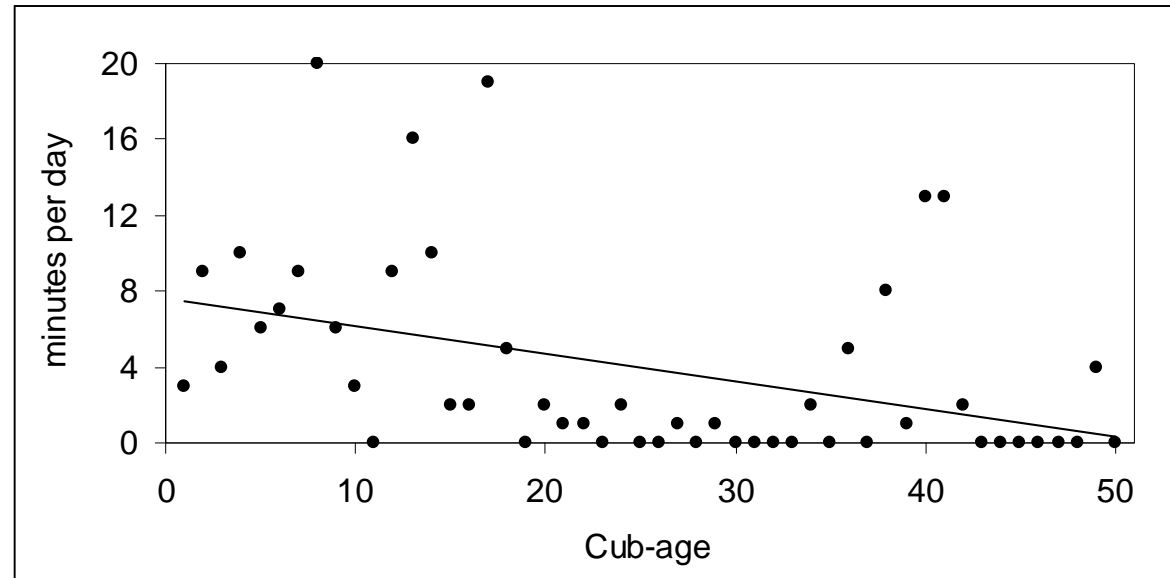


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Cub carrying

Red Panda



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Red Panda

Play Behaviour



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Play Behaviour

Red Panda



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Play Behaviour

Ethogram of social play

<i>Initiation behaviors</i>	
Bite Move	Incomplete biting with open mouth (no bite the other animal)
Head Shake	Shaking head back and forth/up and down (oriented toward another animal)
Paw Laying	Careful and markedly slow paw laying on the back of the other animal
Paw Move	Incomplete paw swat: Holding up of paw, but not swat the opponent
Backwards Approach	Approaching to the opponent with (back)side.
<i>Play bout behaviors</i>	
Climb	With paw contact to another animal
Stand Over	On hind legs and perpendicular to the other animal's body, contact with paws
Bite	Mouth on some part of the other animal: pulling, visibly stretching the opponent's skin or chewing its fur
Claw	Swiping movements at opponent's body with front and/or back paws, from laying position, and thrusting body forward
Paw Swat	Beating another animal with paw(s) - making brief physical contact, standing on hind legs
<i>Termination behaviors</i>	
Break Away	Breaking contact with other animal, remaining without contact or orientation
Push	Lifting of fore or hind paws and placing pressure on the opponent to break a bite-hold
Turn	Twisting and/or rolling to break a bite-hold



Play Behaviour

Red Panda

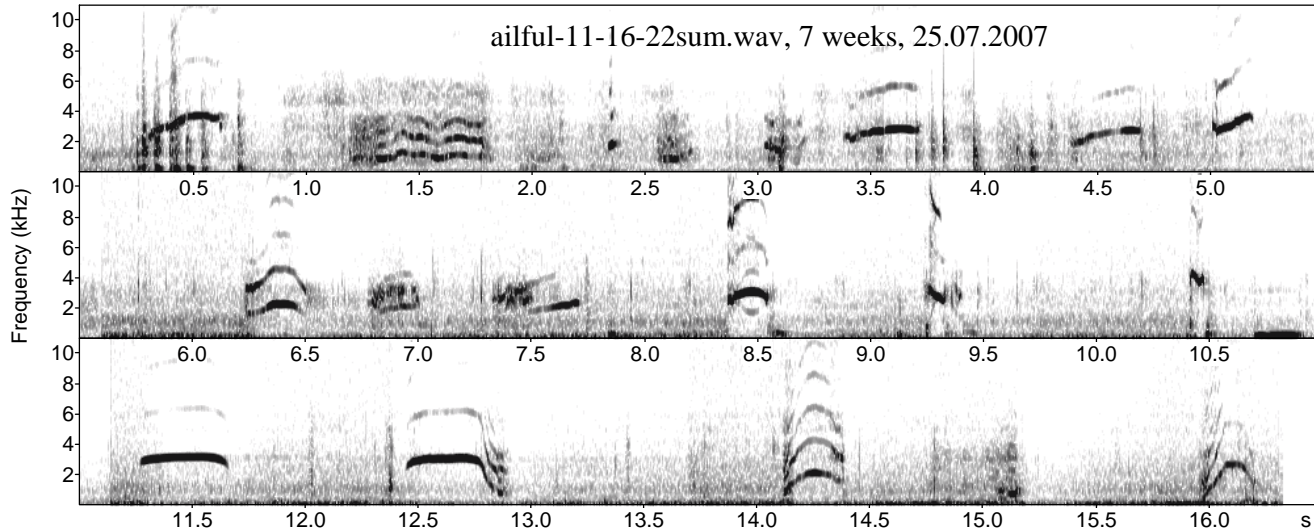


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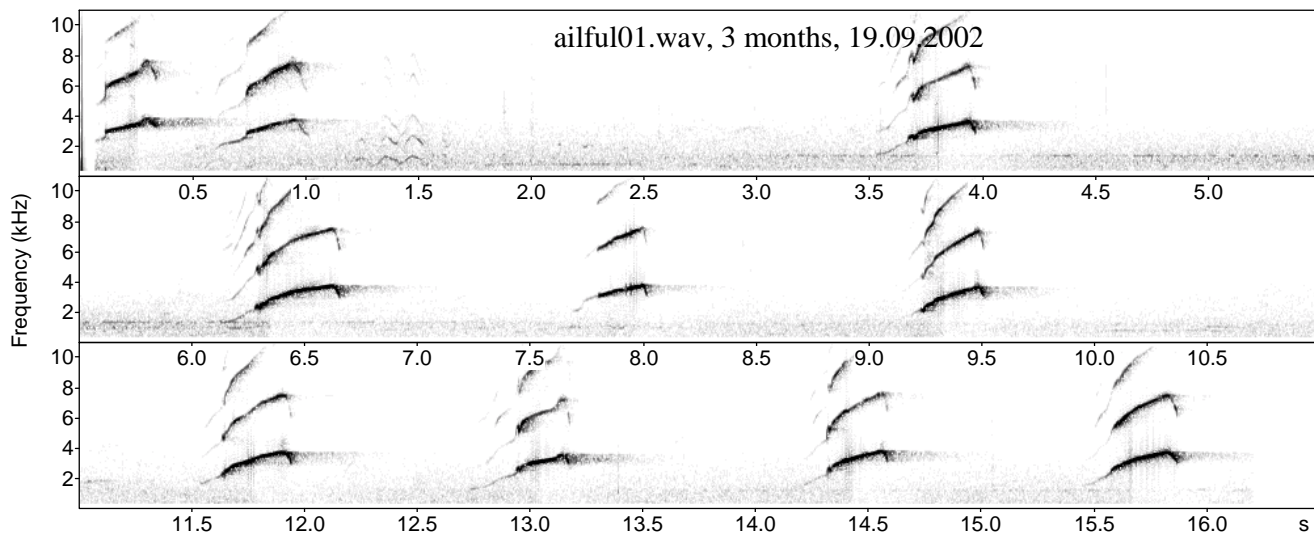


Red Panda

Vocalizations



**Squeaking
during
suckling**

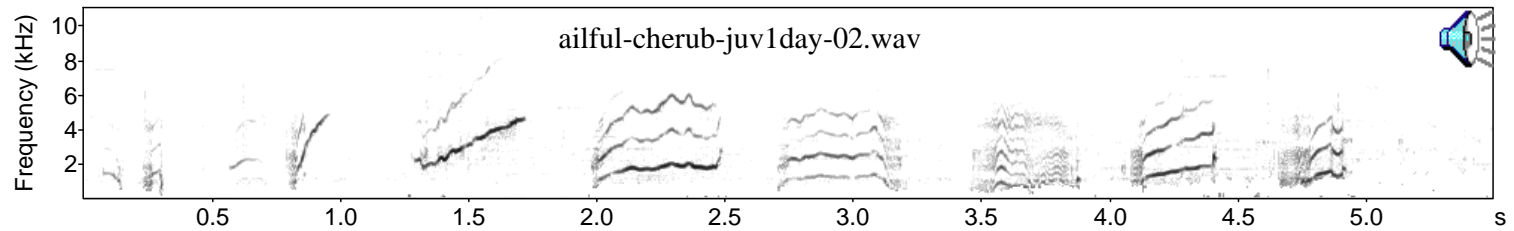


**Distress
calls of a
sick cub**

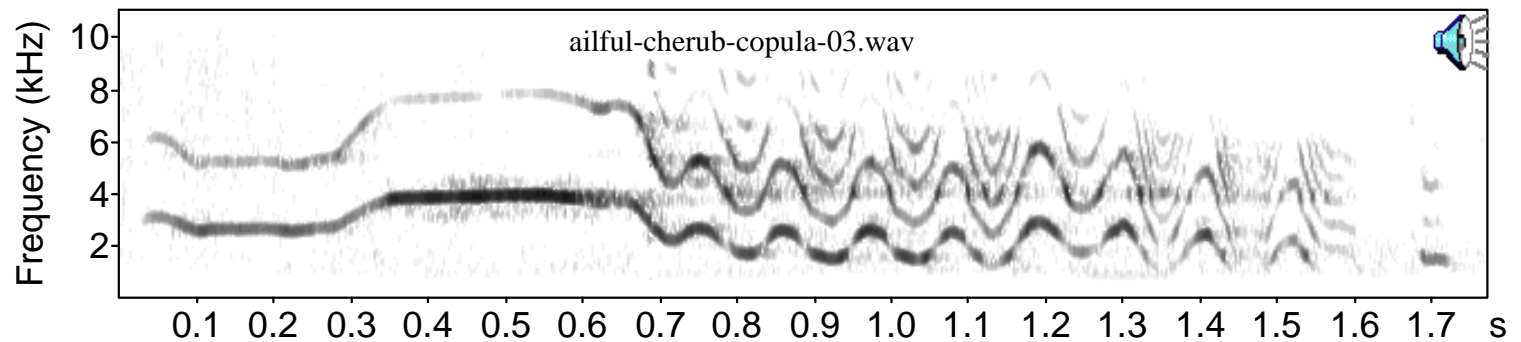
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Vocalizations



Cub first day – whistles and chirps

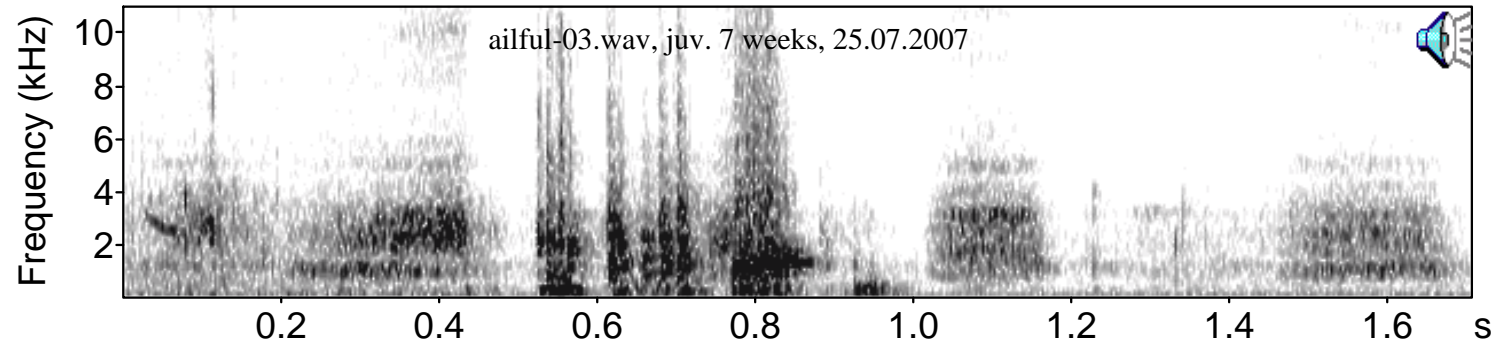


Male during pairing – whistles-chirp

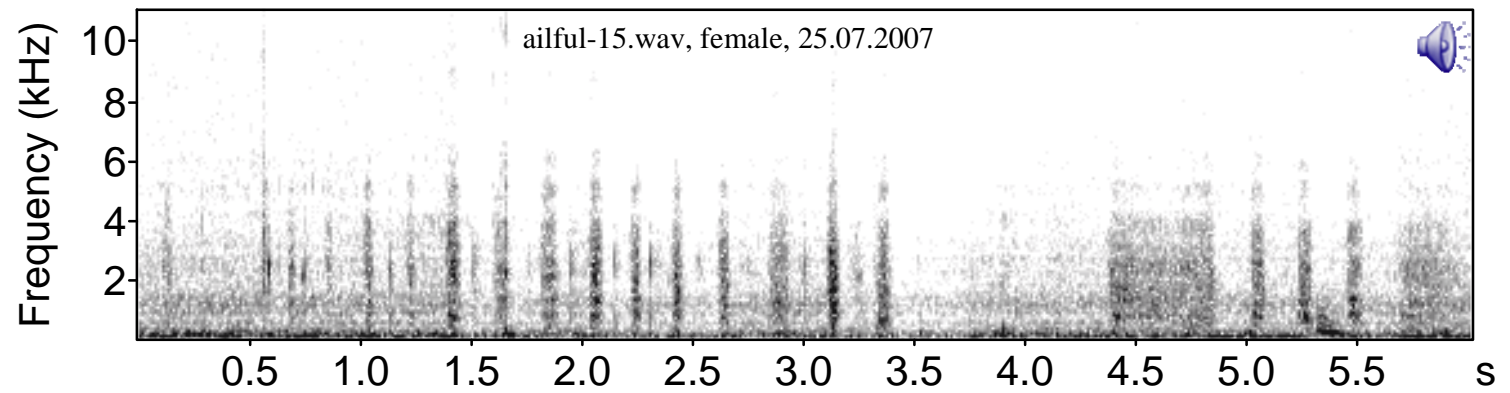
Sound from film „Cherub of the mist“



Vocalizations



Puffing/attack snorts

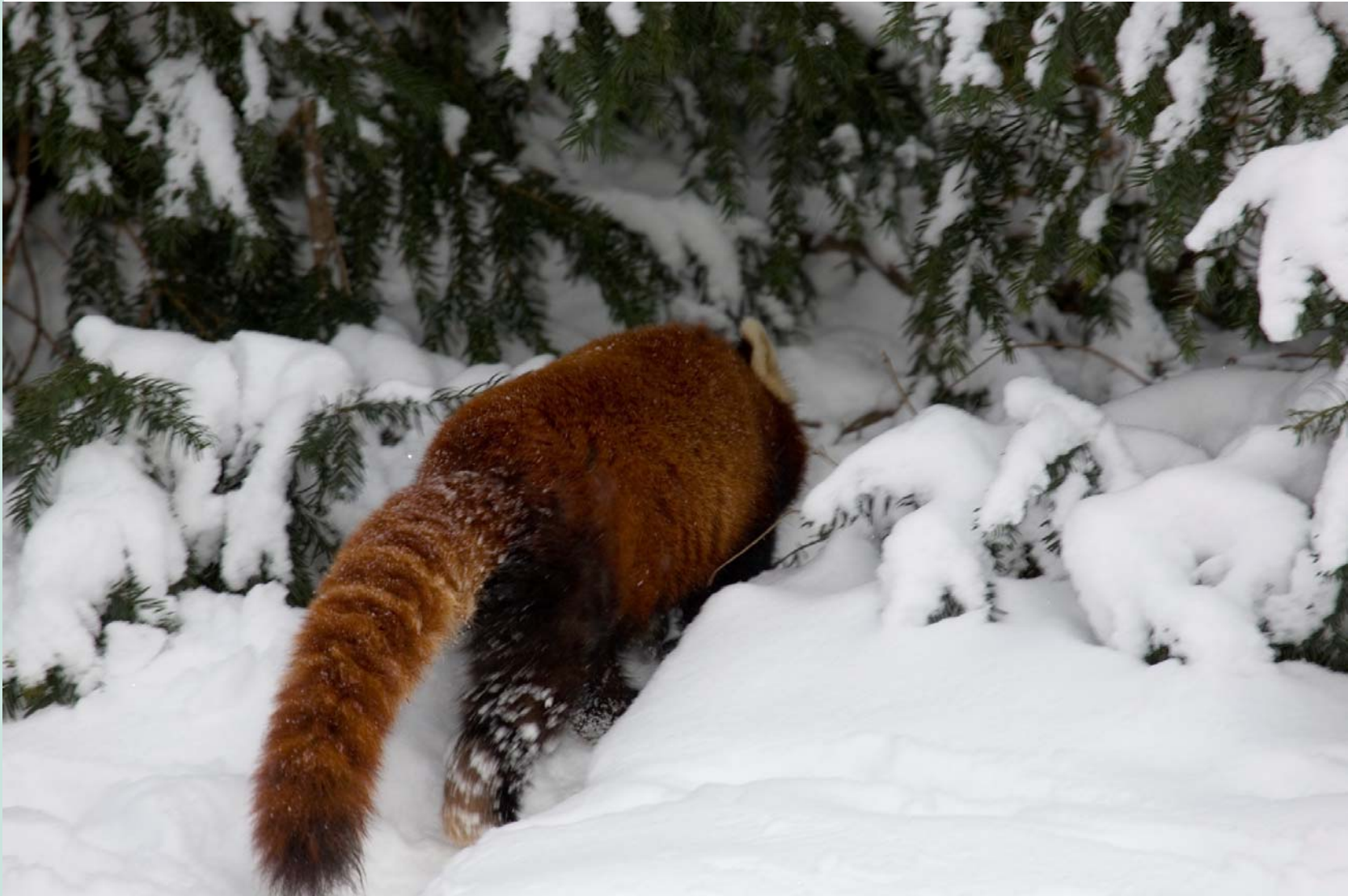


Sniffing noises after attack



With confidence into the future

Red Panda



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