

# Location, location, location. Where do dormice go in the winter?

Leonardo Gubert



# Dormouse surveys, monitoring and research

- Most of our dormouse observations are carried during active season



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# And then there is the hibernation season!

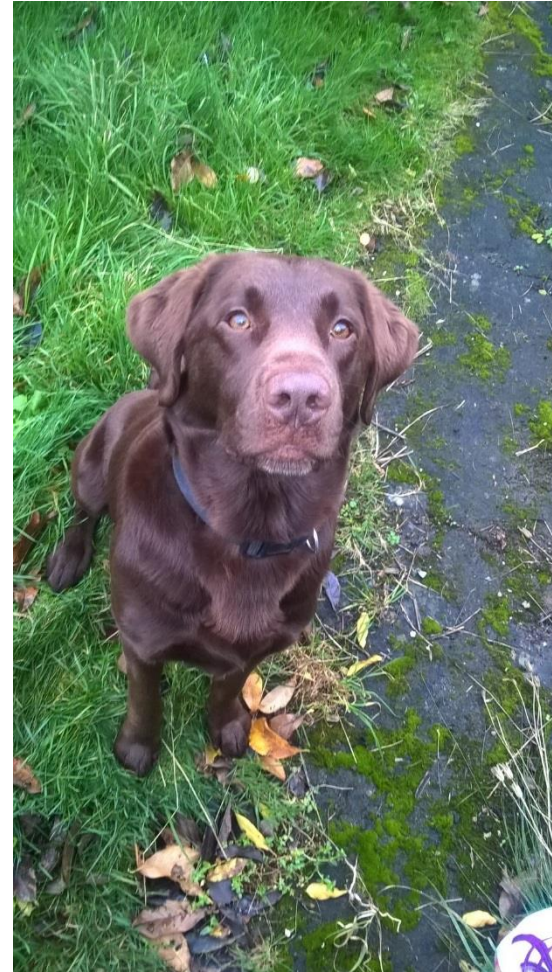
- Dormice leave the canopy (and nest boxes) to nest at ground level at humid locations where temperature is stable.
- All vital functions are reduced to a minimum.
- In preparation, dormice accumulate fat reserves increasing their body weight by around 40% from the steady average weight in summer. It is thought that they use up to 30% of their fat reserves over winter.
- In Britain, the hazel dormouse can spend up to six months hibernating, from October through to May. During hibernation they are mostly inactive, vulnerable to disturbance and predation.

# Hibernation – what do we know?

- High mortality during the winter months.
- A study in Lithuania showed that the average overwinter mortality rate was high in two study areas - 72% and 64%.
- Highest mortality is in the first winter due to starvation during hibernation.
- Dormice are particularly vulnerable in early spring, after they awake from hibernation. The weight loss after months without food require animals to spend a large amount of time foraging.
- Previous radio-tracking studies in the UK and continental Europe revealed that dormice can change nest locations over the winter.
- Literature describe locations for winter nests in small shallows on the woodland floor, leaf litter, under log piles, in the root bases of hedgerows, sunken depressions and under wet moss.

# So where do dormice go in the winter and how can we find them?

- Systematic searches
- Radio tracking
- Metal detecting
- And Charlie Brown !!!



Charlie enjoying a day's work

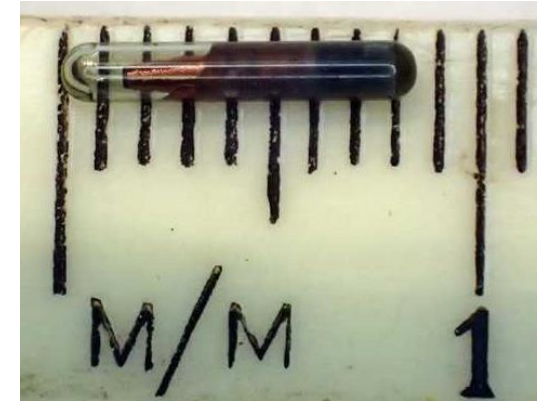


# Radio tracking

- Radio tracking to identify nests and movements over hibernation period.
- Microchipping has also been used to identify individuals and follow up on development, movements, weight gain/loss, survival rates, etc.



# Metal detectors to find dormice?



And then there are systematic searches...

...but where  
do we start?  
...and does it  
work?



# Hibernation Sites

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# Hibernation Sites



# Hibernation Sites



# Hibernation Sites



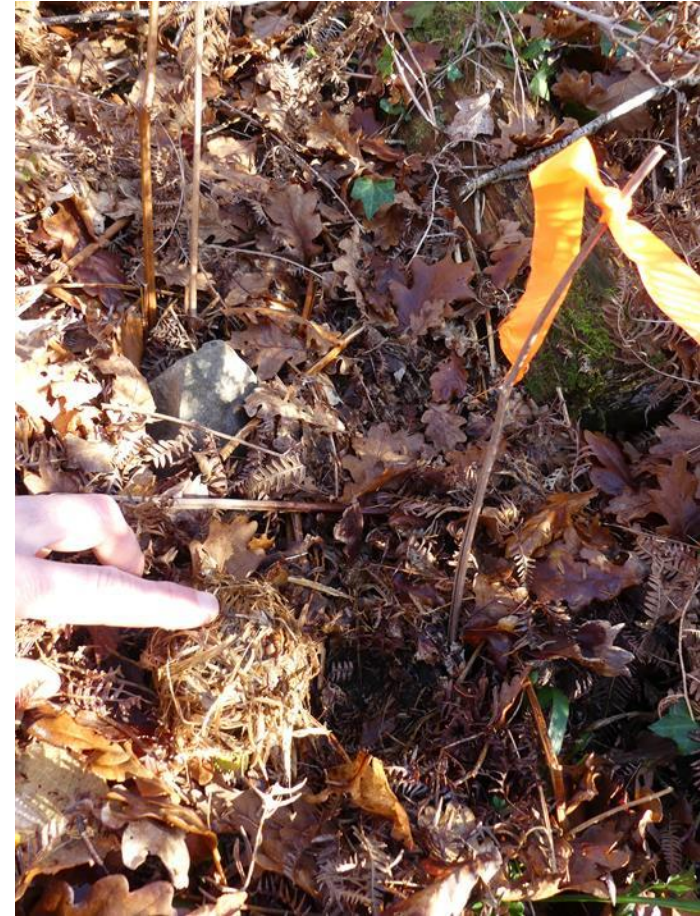
# Hibernation Sites



# Hibernation Sites



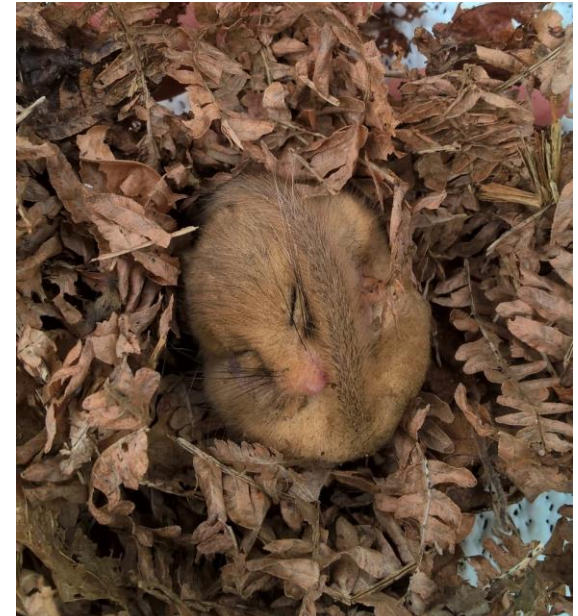
# Hibernation Sites



# Hibernation Sites



# Hibernation sites and nests



# Hibernation sites – conifer plantations



# Hibernation sites



# Hibernation sites –roadside verges



# Some interesting results



# Hibernation sites – parks and footpaths



# Dormouse hibernation and development

You must apply for a mitigation licence if your work has an impact on hazel dormice that would otherwise be illegal, such as:

- capturing, killing, disturbing or injuring them (on purpose or *by not taking enough care*)
- damaging or destroying their breeding or resting places (*even accidentally*)
- obstructing access to their resting or sheltering places (on purpose or by not taking enough care)

# Dormouse hibernation and development

Licensing and specific methodology for hibernation season:

- *During the hibernation period for works involving standard two-stage methodology, finger-tip searches of haul routes or other areas of high risk to dormice must be carried out and dormice relocated to a safe place. Dormice found outside high risk areas during these searches must remain in situ. In the unlikely event of the animal rousing from hibernation it must be taken into captivity until it can be released within 100m of its capture site when weather conditions become suitable.*

# I've found a dormouse hibernation nest! Now what?!

- Do not search too far ahead of proposed works. No more than 24 hrs.
- Once you have found a nest take a photograph before moving it.
- Note location of nest and features of the immediate surroundings.
- Find a location similar to where the nest was found (e.g. next to tree, on slope, deep leaf litter, under fern, etc.). Avoiding steep slopes, very deep depressions on the ground and areas prone to flooding.
- Plan the operation to reduce the time spent handling the nest.
- Avoid opening the nest as it is difficult to put it back together and can trigger arousals!
- Place nest as close as possible to where it was found (preferably <50m) away from disturbance and mark/isolate the site.

I'm home!



# Searching for nests in difficult ground conditions



# Dealing with difficult ground conditions



# Woodland Management

Important for a healthy, productive woodland habitat

...but

- Potential impact on hibernating dormice must be considered
- Inspect working area as well as access/extraction routes
- Stick to inspected area!
- Consider closing off parts of the woodland to contractors/general public



# Woodland Management



# So...

- Dormice have proved to be extremely flexible with regards to location of their hibernation nests (and will continue to surprise us).
- Results so far indicate that dormice stay well within their home range for hibernation and are likely to move to new nests during the winter season.
- Nest materials varied greatly even in nests constructed by the same animal and were *very* locally sourced.
- Hibernation nest can be difficult to find but with a little determination...
- Be mindful of activities that can affect dormice over the winter when they are most vulnerable!

# Thank you

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