

Pollarding: an important, but overlooked tool in the conservation of saproxylic beetles

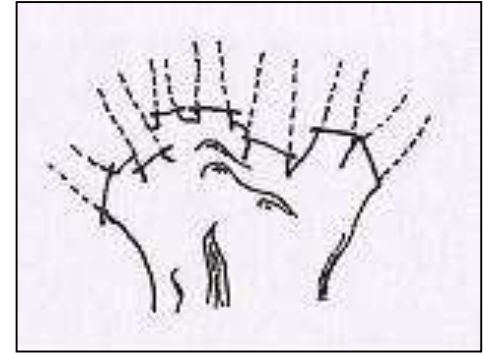
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Pollarding

- (periodical) removal of upper branches by pruning
- traditional silvicultural practice
- formation of pollard trees



Pollarding

How often to pollard ?

Trees are usually pollarded with periods ranging from 5 to 30 years, sometimes shorter.

Fast growing trees 5-7 years

Slow growing trees 15-30 years

What species ?

Most of deciduous trees tolerate the pollarding well.

(most often pollarded: willow, lime, poplar, plane, ...).

Conifers do not like it (except for yew) !



Tree pruning techniques

after O. Rackham (1998)



Coppicing

Pollarding

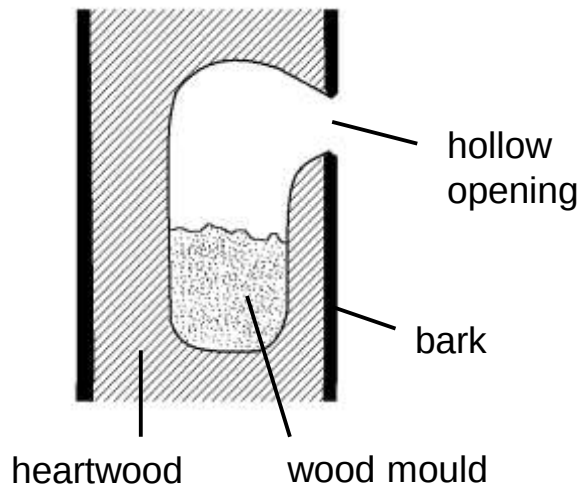
Shredding

Pollarding
(Spanish style,
in dehesas)

Formation of hollows

Pollard trees very often bear hollows (cavities) !

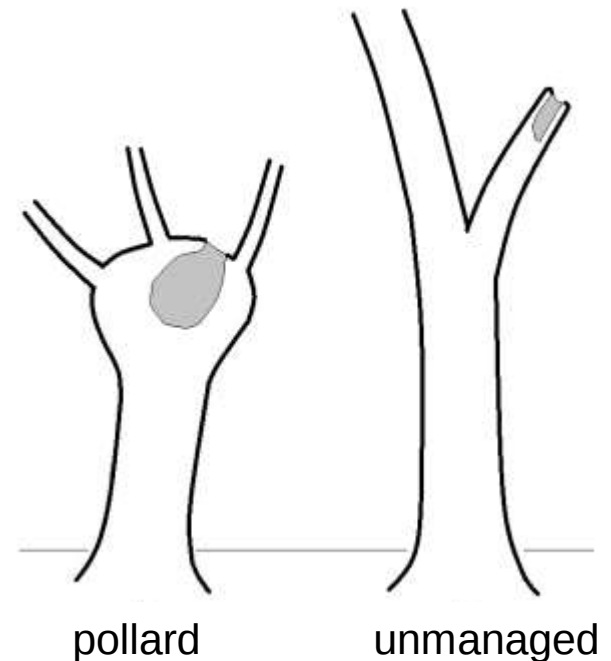
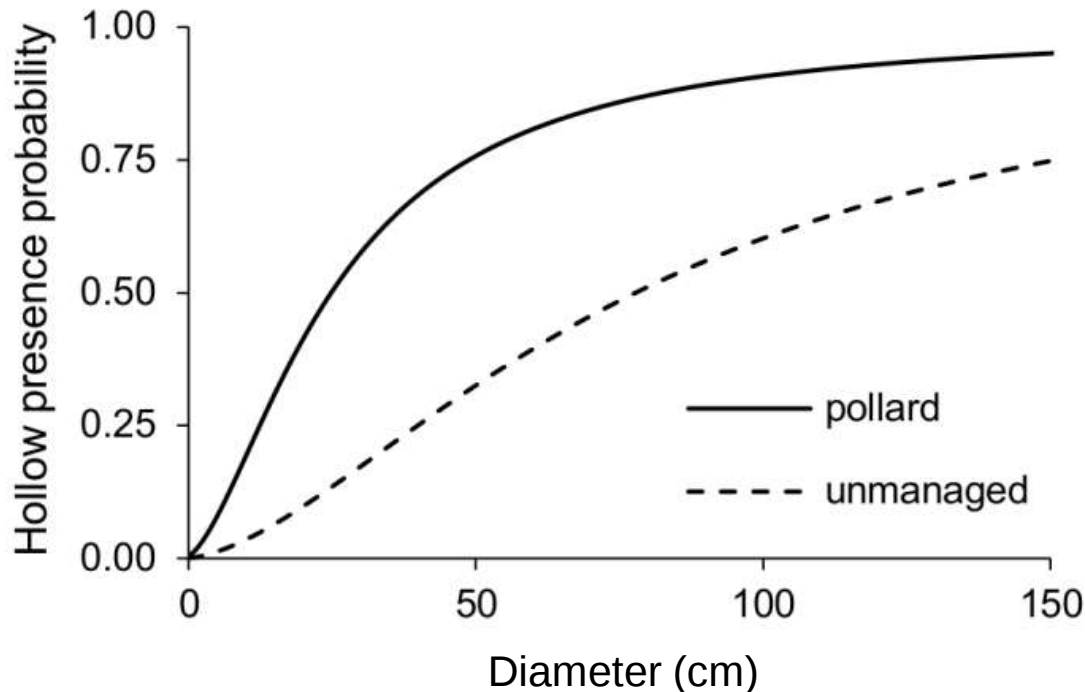
Hollow associated fauna is threatened by the decline in number of hollow-bearing trees.



Formation of hollows

Case study: Comparison of hollow occurrence between pollard and unmanaged willows

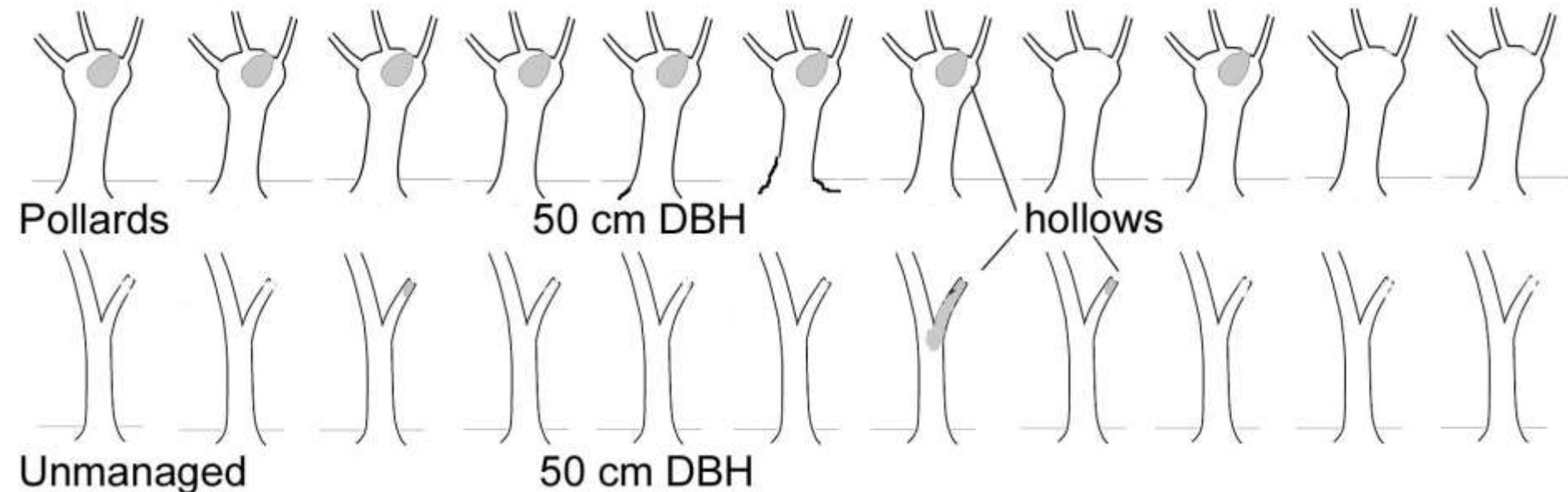
Pollarding promotes the formation of tree hollows



Formation of hollows

Case study: Comparison of hollow occurrence between pollard and unmanaged willows

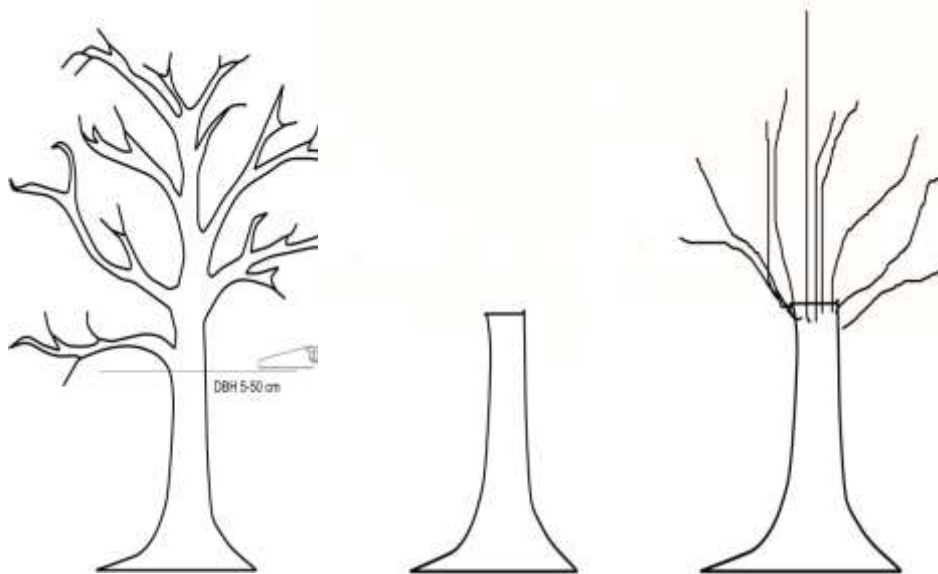
Pollarding promotes the formation of tree hollows



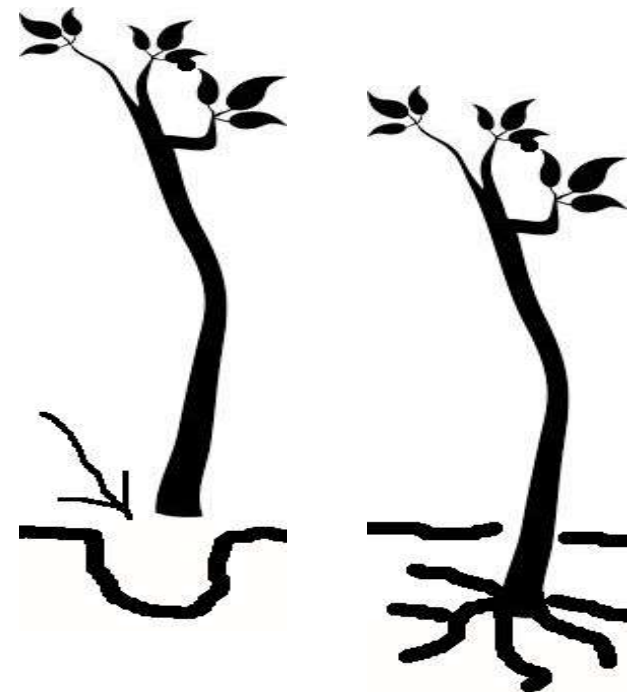
Rapid restoration

Rapid creation of pollard trees (willow, lime, black locust and other well resprouting trees)

Creation of pollards from trees in situ



Planting willow branches up to 20 cm diameter



Pollarding: Benefits

- pollard trees form hollows and other deadwood microhabitats (e.g. bare wood) in younger age of tree
- the pollarding promotes hollow formation in main stem, such hollows tend to be greater
- if made periodically, pollard trees tend to live longer



The pollarding increases density and continuity of the microhabitats associated with veteran trees

- the pollarding provides fire wood, fodder



Pollarding: Costs

- pollarding is an active management - someone has to do it
- if not made periodically, trees are susceptible to damage due to weight of overgrown branches



Abandonment of the practice has lead to rapid decline in availability of the microhabitats



Traces of the pollarding

Pollard trees in Sare, Pyrenees, South France



Osmoderma eremita s.l.





Marais Poitevin - swamps



Ash pollards - a key habitat (also along Black Sea coast)

Not only for hollow-dwellers



**Beech pollards
– a key habitat
in Crimea,
Carpathians,
Bezdez, Stara
planina etc.**

Active management



Active management

Vojkovická vrbovna, South Moravia





Active management



A problem in protected areas: old trees have been pollarded, young trees are not !

→ Decline in microhabitats

Conclusions

Thanks to the pollarding practice, the hollow associated fauna found favourable conditions in the past. Today, old pollard trees serve as refuges for the fauna.

The pollarding is crucial for maintaining continual offer of the hollows.

The pollarding is a suitable conservation management whenever a rapid hollow formation is needed.