



An Roinn Cultúir,
Oidhreacht agus Gaeltachta
Department of Culture,
Heritage and the Gaeltacht



The current status of the freshwater pearl mussel and future outlook for the species

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National Parks and Wildlife Service

A Mini-Conference on the threats and opportunities for the Freshwater Pearl Mussel

12th October 2018

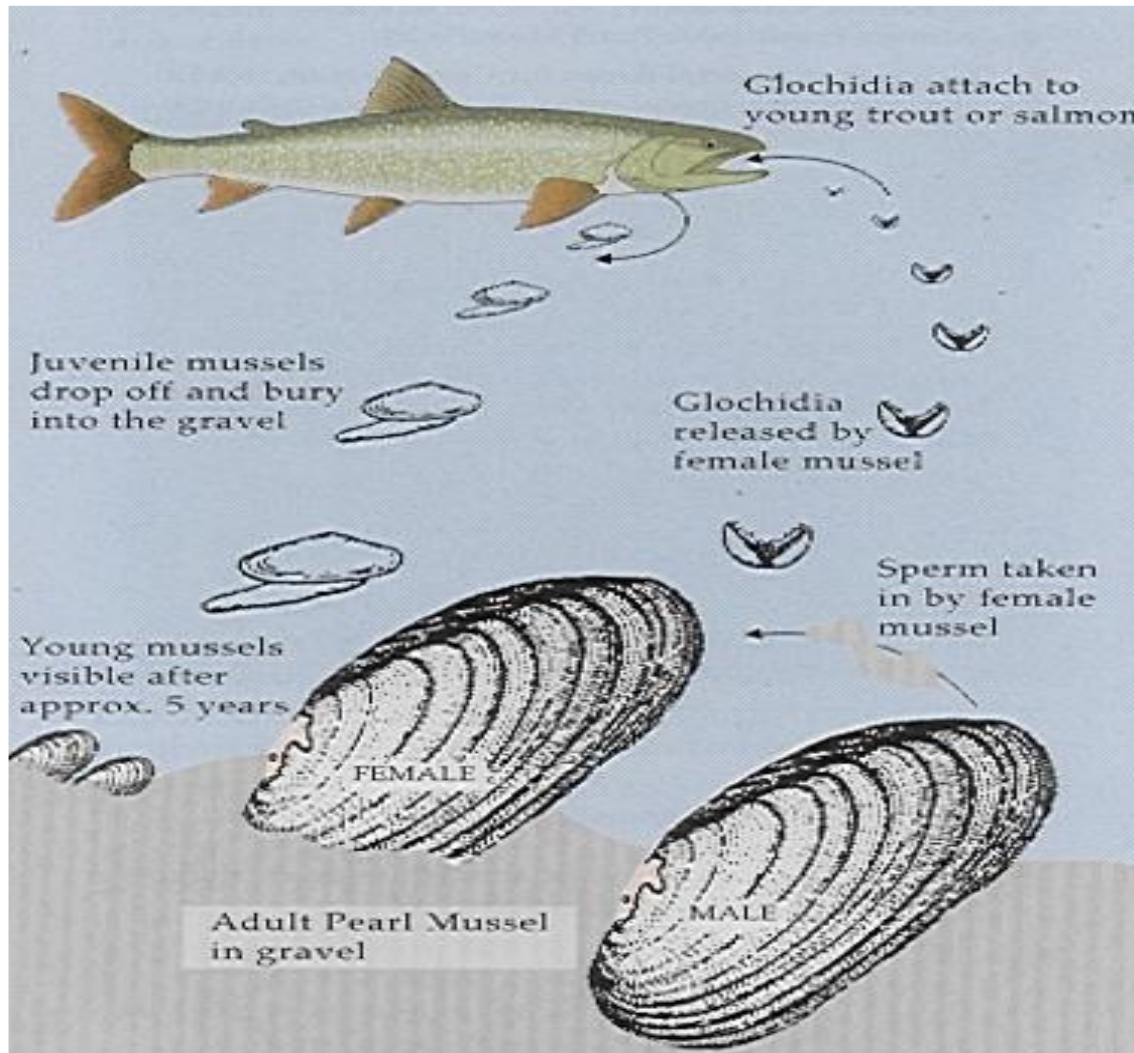
The experts



The freshwater pearl mussel



Life cycle



Brooding



Glochida on host fish



Juvenile mussels



Long-lived



- Life-span of 100 yrs
- Shorter lived in East
- Up to 160 mm long



Ancient

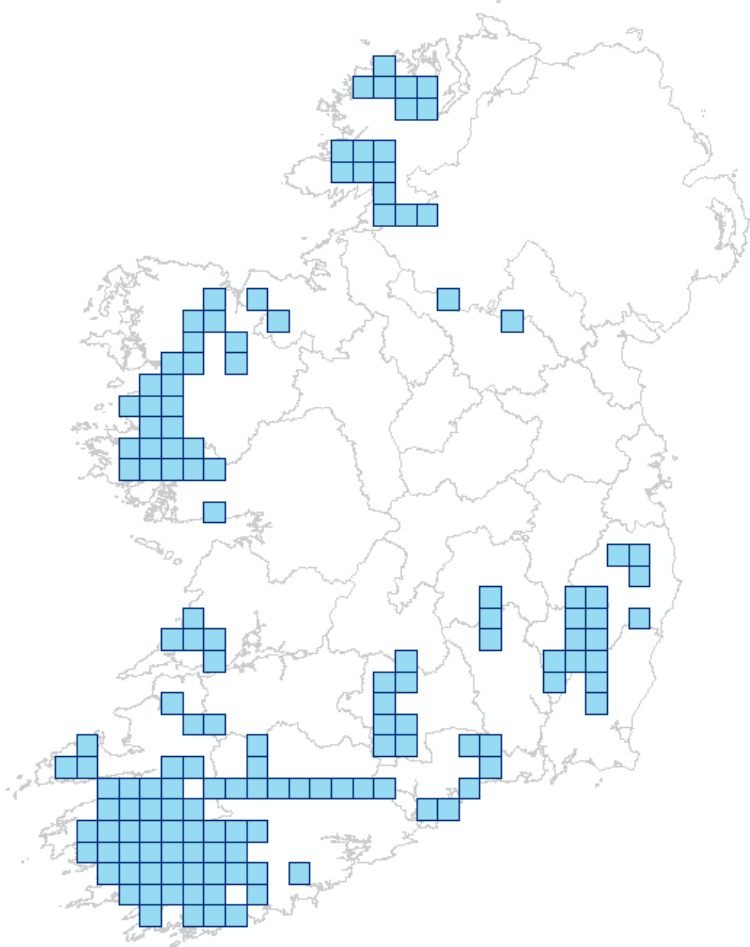


Evolved 50-65 million years ago



Iguanodon

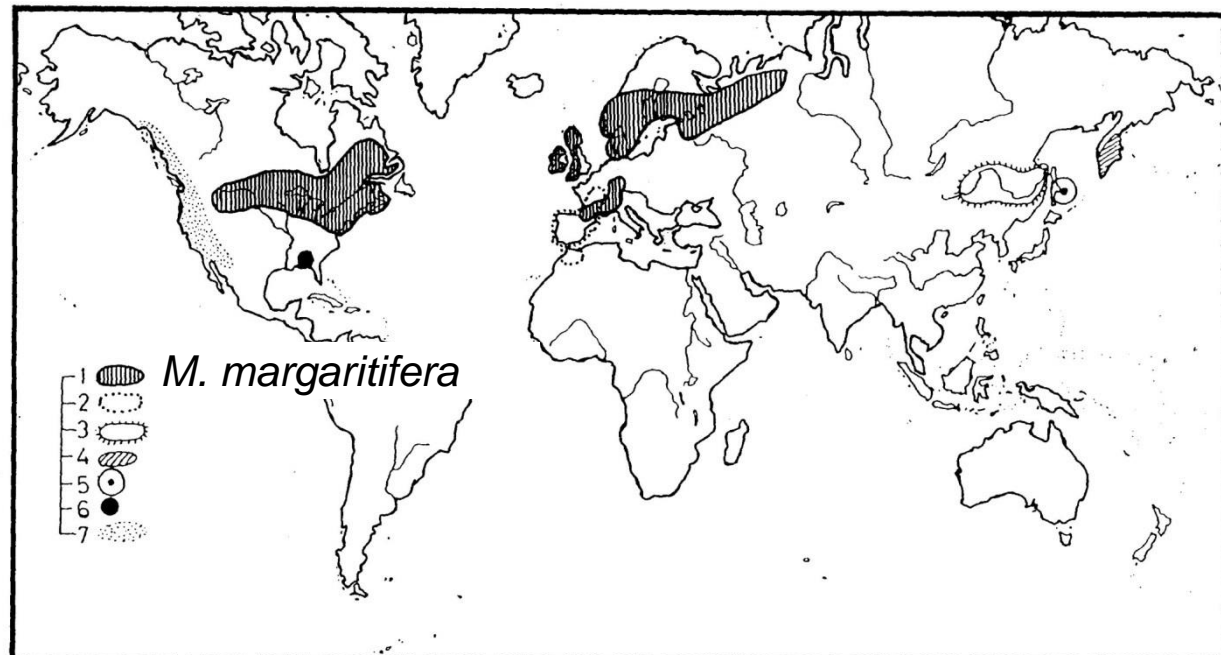
Unchanged, widespread



Threat status



- IUCN
- **Critically endangered (CR)**, in
 - Ireland
 - Europe
 - The World



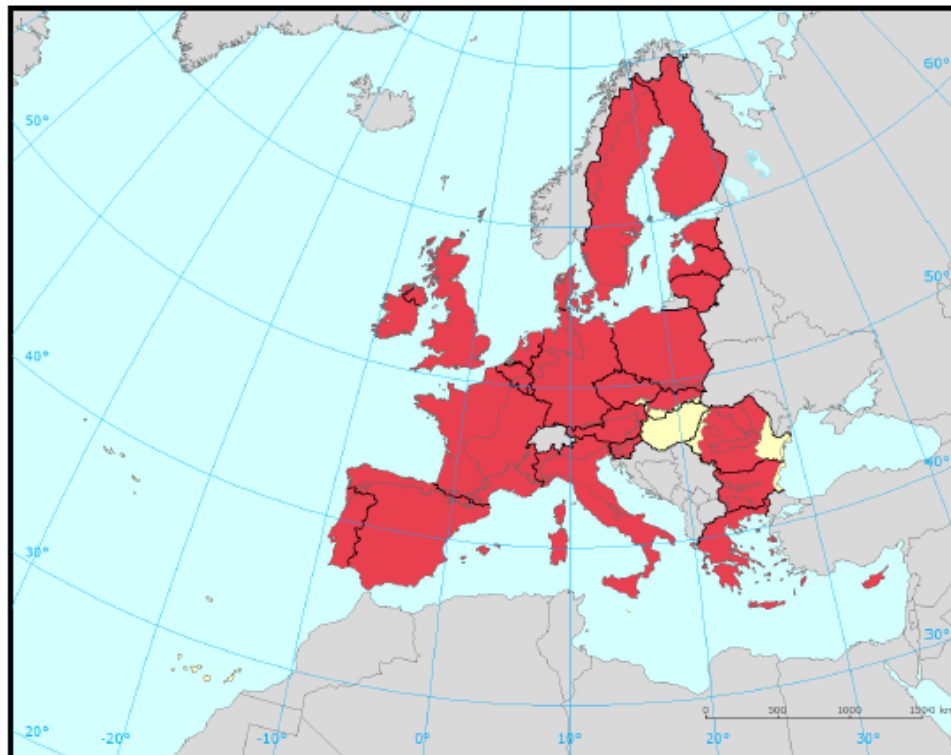
Conservation status



Species: *Margaritifera margaritifera*

Report under the Article 17 of the Habitats Directive

Assessment of conservation status at the European biogeographical level

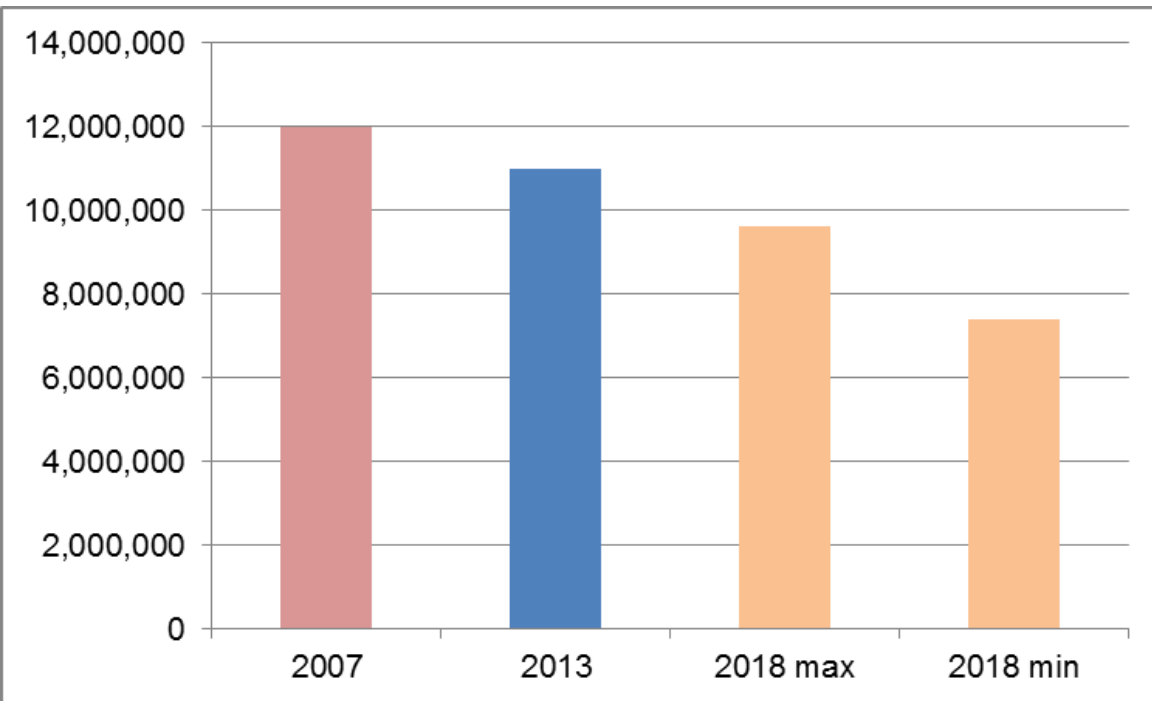


Margaritifera margaritifera

Conservation status at the EU biogeographical level

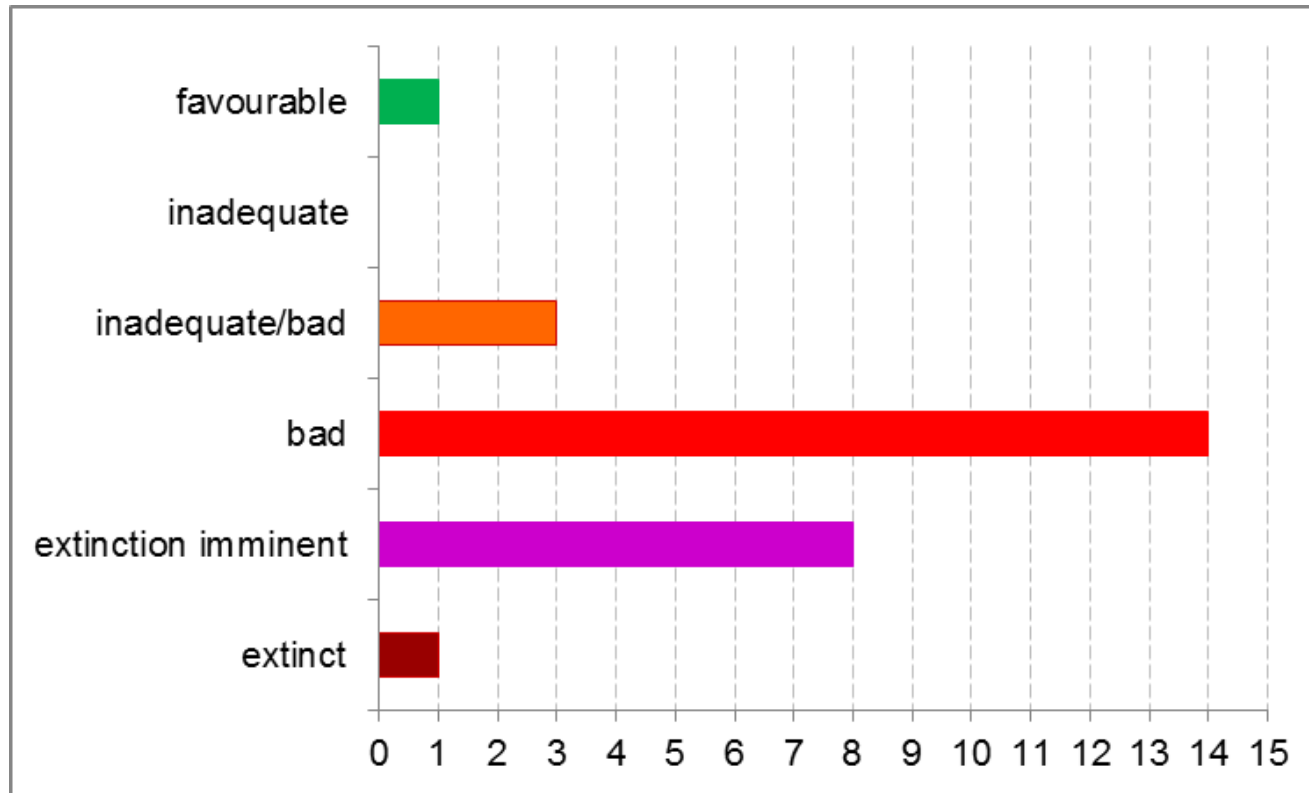
- Favourable
- Unfavourable – inadequate
- Unfavourable – bad
- Unknown
- EU Member States
- Outside data coverage
- Biogeographical regions

Population decline



- Clodiagh
 - 67 mussels counted at 5 stations
 - average decline of 67.3% 2006-2016
- Licky
 - declines of 37-100% 2005-2016 across 7 stations

Conservation status



27 freshwater pearl mussel populations monitored 2014-2016

Conservation status



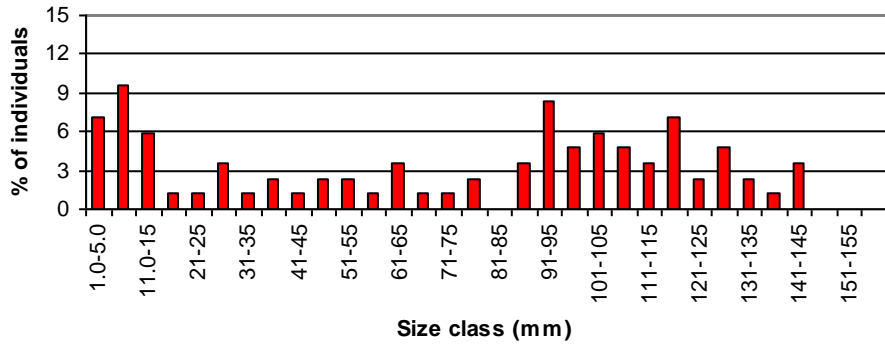
- 27 populations surveyed 2014-2016
- 11 populations had one or more young mussels (≤ 65 mm)
- Only 4 had juvenile mussels (≤ 30 mm)
- Dead or dying mussels recorded in 12
- Large declines adult numbers in another 6

Juvenile and young mussels



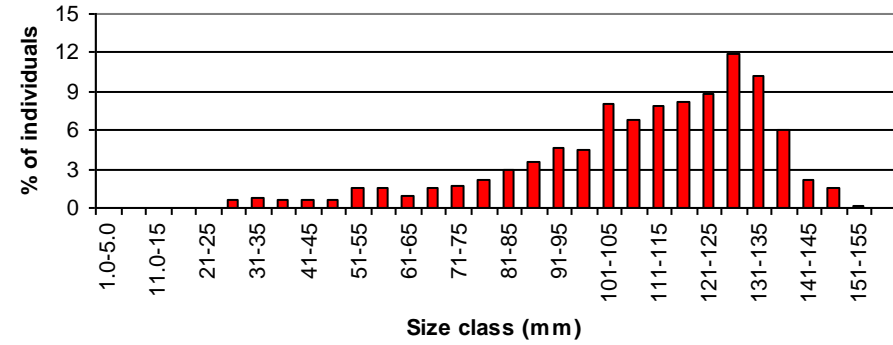
1990

1990 (n=94)



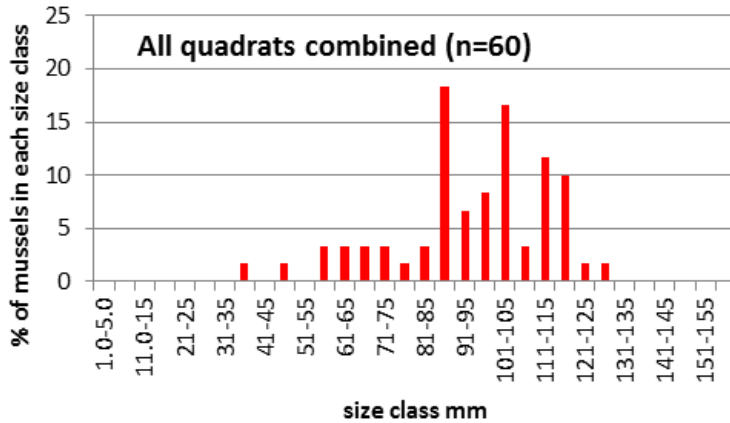
2006

2006 (n=512)



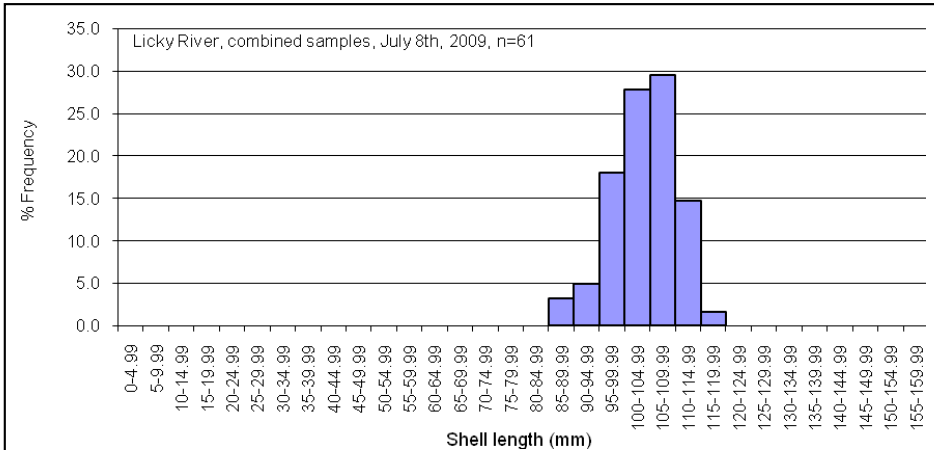
Dawros 2016

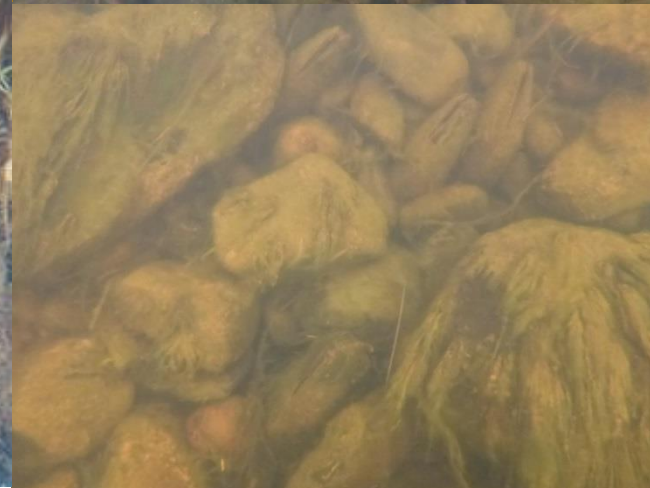
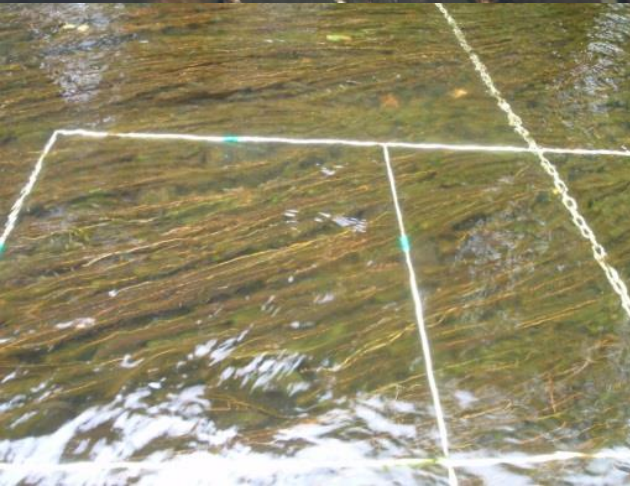
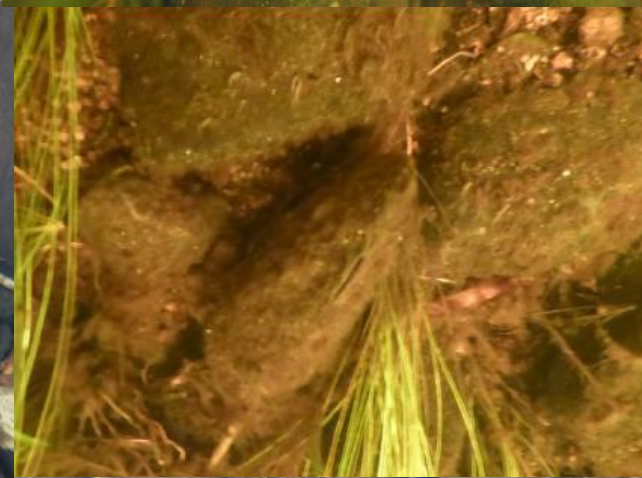
All quadrats combined (n=60)



Licky 2009

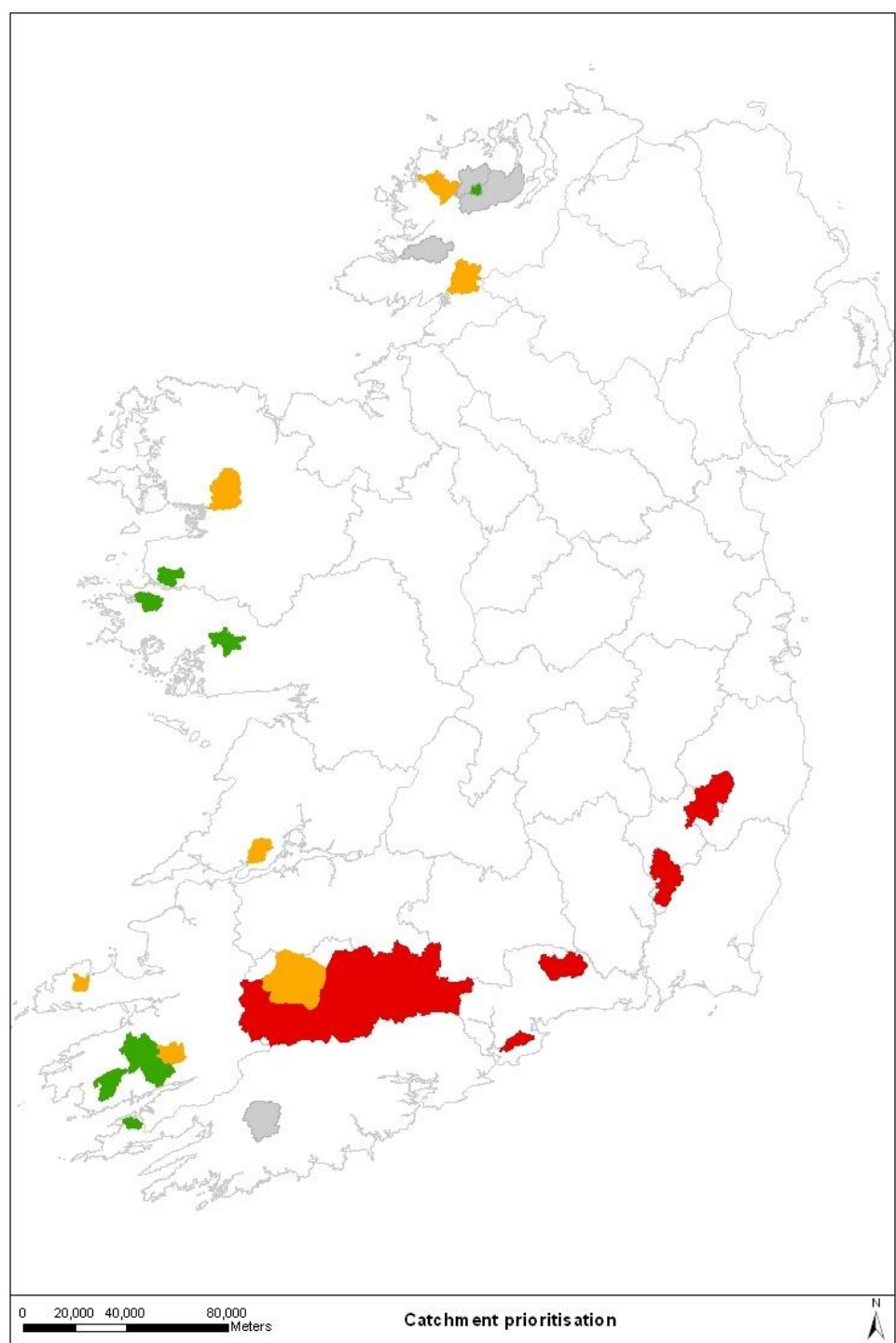
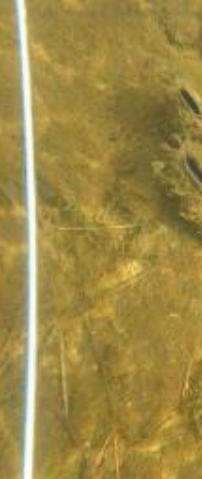
Licky River, combined samples, July 8th, 2009, n=61

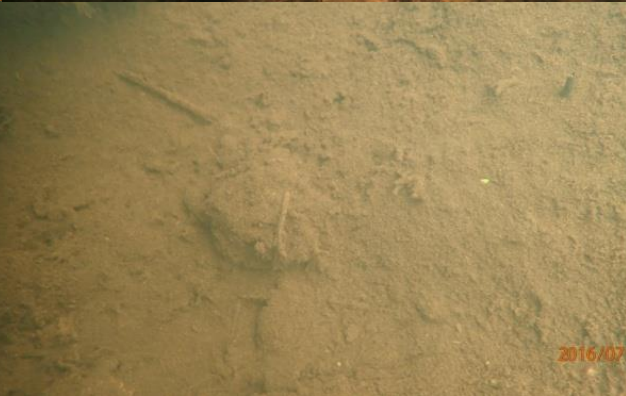






8 priority populations (green)
have 80% of mussels in only
8.5% of catchment area







The future outlook?

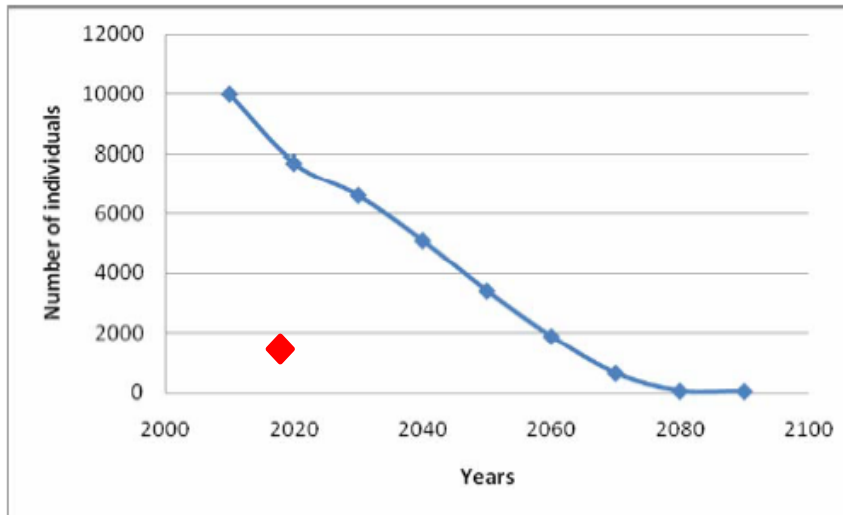


Figure 4.3 Predicted numbers of mussels over time in the Glaskellean Catchment.



Thank you