Freshwater pearl mussel - a species on the brink

Help tackle wildlife crime and ensure an iconic species’ survival

What are they?
Freshwater pearl mussels are large, long-lived mussels that live in the bottom of clean, fast-flowing rivers. They are now very rare and Scotland is one of the global strongholds for the species. So it is important Scottish populations are conserved.

Why are they rare?
Freshwater pearl mussels have been killed for the pearls they occasionally contain. They are also very vulnerable to disturbance from engineering work in rivers and water pollution. These threats continue and have resulted in many rivers no longer supporting pearl mussel populations.

What does the law say?
The law is very clear. It is an offence to intentionally or recklessly kill, injure, take or disturb freshwater pearl mussels or their habitat.

What can I do?
If you see any suspicious activity, please report it to the police as soon as possible. Contact your local police station and ask for the Wildlife Crime Officer.

If you are planning any river engineering work you must ensure that it will not affect freshwater pearl mussels and are advised to consult SEPA and SNH.
Freshwater pearl mussels

Freshwater pearl mussels (Margaritifera margaritifera) are similar in shape to marine mussels but grow much larger and live far longer than their marine relatives. They can grow to over 15 cm long and live for more than a century. They are dark brown to black in colour and live at the bottom of clean, fast-flowing rivers, where they may be completely or partially buried in coarse sand or fine gravel. They feed by drawing in river water and filtering out fine particles, with an adult being able to filter about 50 litres of water a day. They have a complex lifecycle and, in their first year, they harmlessly live on the gills of young salmon or trout. Scotland continues to support some of the most important populations in the world for this species.

They are endangered

Pearl mussels are globally threatened. Once widely distributed throughout Europe they are now extinct ‘pearl-fishers’ primarily responsible for these massive declines in their numbers and range. But as filter feeders living on the riverbed, freshwater pearl mussels are also extremely vulnerable to water pollution and are threatened by changes in river management, such as the construction of weirs or deepening of pools.

The Law

Despite the protection afforded to freshwater pearl mussels, the continued threat to pearl mussels from illegal activities has made the species a global stronghold of the species, supporting many of the world’s most important populations.

It is an offence, under the Wildlife and Countryside Act 1981, to intentionally or recklessly kill, injure, take or disturb freshwater pearl mussels or to damage or destroy their habitat.

Why?

Pearl fishing often takes place when rivers are low in the spring and summer and early in the morning. It is often carried out by wading into the river, using a glass-bottomed bucket to find the mussels and a cleft stick to retrieve them from the river bed. Signs of this activity can include a pile of dead shells, or disturbed bank along the edge of the river. If you see any suspected pearl ‘fishing’, or other evidence of pearl fishing has been carried out at a particular site, please report it to the nearest police station and Wildlife Crime Officer as well as requiring authorisation from the Scottish Environment Protection Agency (SEPA) and possibly Scottish Natural Heritage (SNH) will be able to help you with your plans to ensure they take account of freshwater pearl mussels. Failure to do so may mean you are breaking the law.

What you can do to help

As a member of the public your help is crucial; best to try to tackle these crimes and conserve the species reduced to a few populations in Southern Scotland and some more abundant populations in the world. SNH and partners including the police, NWCU and Scottish Natural Heritage, Battleby, Redgorton, Perth PH1 3EW will be working to reintroduce the species to rivers from which they have become extinct.

How can I help?

By following the simple advice in this leaflet and reporting any suspicious activity to the police.

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Why?

To highlight the plight of the freshwater pearl mussel and the threat posed by criminal activity.

What is being done?

SNH and partners including the police, NWCU and others are working on a range of projects to ensure the continued survival of freshwater pearl mussels. These projects include raising awareness of freshwater pearl mussels to better protect them, restoring their habitat and working to reintroduce the species to rivers from which they have become extinct.

How can I help?

By following the simple advice in this leaflet and reporting any suspicious activity to the police.
Why they are endangered?

Pearl mussels are globally threatened. Once widely distributed throughout Europe they are now extinct across most of their former range and Scotland is a global stronghold of the species, supporting many of the world’s most important populations.

As their name suggests, freshwater pearl mussels will very occasionally bear a pearl. In some ways this may have led to their downfall, with over-exploitation by ‘pearl-fishers’ primarily responsible for these massive declines in their numbers and range. But as filter-feeders living on the riverbed, freshwater pearl mussels are also extremely vulnerable to water pollution and engineering work in rivers such as the construction of weirs or deepening of pools.

Even in Scotland the pearl mussel is ‘on the brink’, with the species reduced to a few populations in Southern Scotland and some more abundant populations in the Highlands. The effect of pearl fishing, river engineering and water pollution presented such a serious threat to the continued survival of the mussel that the law was changed in 1998, giving the freshwater pearl mussel full legal protection. The continued threat to pearl mussels from illegal activities has made the species a UK wildlife crime conservation priority.

The Law

It is an offence, under the Wildlife and Countryside Act 1981, to intentionally or recklessly kill, injure, take or disturb freshwater pearl mussels or to damage their habitat. This means that it is illegal to catch the mussels to look for any pearls they might contain. It is also illegal to sell, or advertise for sale, freshwater pearl mussels or their pearls unless done under a licence from the Scottish Government. Those undertaking river engineering works also need to ensure that they are doing so without breaking the law.

What you can do to help

Despite the protection afforded to freshwater pearl mussels, illegal activities continue, and as a result the pressure on our remaining populations increases. Whilst the Police and other organisations do their best to try to tackle these crimes and conserve the species, your help is crucial;

As a member of the public

Pearl fishing often takes place when rivers are low in the spring and summer and early in the morning when there is less chance of being detected. Fishing is often carried out by wading into the river, using a glass-bottomed bucket to find the mussels and a cleft stick to retrieve them from the river bed. Signs that pearl fishing has been carried out at a particular area includes piles of dead shells on the river bank, in the water or at secluded spots nearby. If you see any suspected pearl fishing, or other evidence such as a pile of dead shells, please report it to the nearest police station and Wildlife Crime Officer as soon as possible.

As someone planning river engineering works

If you are planning river engineering works then, as well as requiring authorisation from the Scottish Environment Protection Agency (SEPA) and possibly planning permission, you should ensure that your plans will not affect freshwater pearl mussels. SEPA and Scottish Natural Heritage (SNH) will be able to help you with your plans to ensure they take account of freshwater pearl mussels. Failure to do so may mean you are breaking the law.