

# Save the Noble Crayfish!

Information to you who fish in or have activities in Swedish water hosting Noble Crayfish (*Astacus astacus*)



# **Noble Crayfish - an endangered species**

If you are planning to fish, or travel by boat on water where there are Noble Crayfish, you need to know how to avoid spreading crayfish plague. The spores spread easily and can wipe out the Noble Crayfish.

#### What can I do?

Since it is mainly people who spread crayfish plague, it is a problem that can be solved. Follow these three rules to prevent the spread of infection:

#### 1. Do not plant out Signal Crayfish

Planting out Signal Crayfish (*Pacifastacus leniusculus*) is illegal in EU. Signal Crayfish are carriers of crayfish plague and can spread the infection on to Noble Crayfish (*Astacus astacus*), which die from it.

#### 2. Do not move fish to other waters

Do not use baitfish in water where they were not caught. Nor should you pour water from one body of water into another.

#### 3. Disinfect boats and implements

If you have used a boat or implement in water outside Norrbotten and move them to water where Noble Crayfish live you should make sure that you do not spread the infection\*. Make sure that boats and implements are completely dried, or are cleaned with T-röd or Virkon™ S, or are boiled or thoroughly frozen.

\* When crayfishing it is a legal requirement that implements moved between waters are cleaned. It is not permitted to store or throw parts of crayfish in waters other than where they were caught. It is also forbidden to clean or throw packaging where crayfish have been stored into other waters. Crayfishing requires a special fishing licence and is handled individually for each watercourse.

#### **Methods of disinfection**

- 1. Disinfection is done with agents effective against fungus and spores, for example Virkon™ S, a biodegradable disinfectant.
- 2. Drying until completely dry, for example: in a sauna at 70° C for at least five hours (large objects) or at least one hour (small objects) or through long-term exposure to the sun or air drying.
- 3. Cleaning or immersion in T-röd methylated spirits (3 parts spirits and 1 part water). Immerse fishing gear for at least 20 min.
- 4. Boats are completely emptied of water and thoroughly air-dried. Emptied boats can also be sprayed with T-röd or Virkon™ S
- 5. Freezing below -10° C for at least 24 hours. Suitable for neoprene fittings and waders with felt sole.
- 6. Boiling under a lid for at least 5 min. The object must be completely immersed in the water.



Noble Crayfish (Astacus astacus). Photo: Jörgen Wiklund/SLU

### This is the Noble Crayfish

The Noble Crayfish is a nocturnal, bottom dwelling, omnivorous creature living in lakes and watercourses in the whole of Sweden except inland areas in northern Sweden and in the mountains. It thrives near shores and prefers solid beds where it can hide among stones and gravel. The Noble Crayfish probably migrated naturally into Scandinavia over 10,000 years ago. It was introduced into Norrbotten sometime in the 1940s and has since then spread in the coastal area.

### An endangered species

Stocks of Noble Crayfish have decreased sharply in Sweden, above all because of crayfish plague. It is estimated that in the last century, 98 % of the stocks were wiped out in Sweden. Today there are less than 1,000 known populations in the country. Because of the decrease, the species is classed as Critically Endangered (CR) on the Swedish red list for threatened species, and there is a national action programme.



# Signal Crayfish the vector

The Signal Crayfish is an invasive alien species in the whole of the EU. It originally came from North America and since the end of the 1960s has been introduced in many waters in the south of Sweden. The Signal Crayfish can carry crayfish plague without itself becoming diseased. By planting out Signal Crayfish, which is now illegal, crayfish plague has spread nationwide, with elimination of Noble Crayfish populations as a consequence.

# **About crayfish plague**

Crayfish plague is a parasitic fungal disease originating in North America. It is transmitted by spores which spread in water. Crayfish plague came to Sweden in 1907 with imported food crayfish. It then spread over southern Sweden. When Noble Crayfish become infected they die after a few weeks. Without the presence of crayfish, the spores can survive a few weeks in water. The spores are sensitive to dehydration and to high and low temperatures.



If you are going to fish in waters with Noble Crayfish - follow rules and recommendations. Photo: Mostphotos

# Watercourses in Norrbotten county with known populations of Noble Crayfish

- Åbyälven
- Sågbäcken
- Lillpiteälven
- Alterälven
- Alån
- Luleälven
- Råneälven
- Töreälven
- Kalixälven
- Sangisälven
- Keräsjoki
- Torneälven



Contact the County Administrative Board if you find crayfish that might be infected.

Telephone: 010-225 50 00 lansstyrelsen.se/norrbotten



