Red King Crab, *Paralithodes camtschaticus*

**Overview**

Short description of *Paralithodes camtschaticus*, Red King Crab

A large crab with a span from leg to leg of up to 1.4 m and weighing up to 10kg. Reddish brown to purple in colour and covered in spines, it has two claws, three pairs of walking legs and one pair of concealed legs.

Description of *Paralithodes camtschaticus*, Red King Crab status in GB

The red king crab is not currently known in GB.

Habitat summary: *Paralithodes camtschaticus*, Red King Crab

Adult red king crabs tend to be found on sandy/muddy substrate in deeper water (~300 m) but a shorward migration to shallow waters occurs for mating and breeding in late winter and early spring.

**Overview table**

| Environment: | Marine |
| Species status: | Non-Native |
| Native range: | Alberta, British Columbia, Labrador, Maniobta, New Brunswick, Nova Scotia, Ontario, Saskatchewan, Yukon, North Korea, South Korea, Russia Central, Russia East, Russia North, Russia Northwest, Russia South, Alaska |
| Functional type: | Omnivore |
| Status in England: | Non-Native |
| Status in Scotland: | Non-Native |
| Status in Wales: | Non-Native |
| Location of first record: | No British records to date |
| Date of first record: | Unknown |

Invasion history: *Paralithodes camtschaticus*, Red King Crab

**Origin**

The red king crab is native to the Okhotsk and Japan Sea, Bering Sea and Northern Pacific Ocean, along the coasts of Korea, Japan, Russia, Alaska and Canada. Following intentional release by Russian scientists into the East Barents Sea (Russia) to create a new and valuable fishing resource, the red king crab has spread both east along the Kola Peninsula and westwards into Norwegian waters.

**First Record**

No GB records to date.

**Pathway and Method**

The red king crab's current range results from deliberate introduction into the Barents Sea, coupled with larval transport by currents and/or ballast water, and adult migration.

**Species Status**

Since the introduction of red king crabs into the East Barents Sea during the 1960s, their range has expanded westwards to the Lofoten Islands – encompassing about one third of the Norwegian coast – and it is now abundant in this region. Russian scientists believe that the red king crab in the Barents Sea may have reached the limits of its eastern distribution due to salinity and temperature restraints.

**Ecology & Habitat: *Paralithodes camtschaticus*, Red King Crab**

**Dispersal Mechanisms**

Larvae are pelagic for two to three months and can be transported considerable distances by ocean currents. Larvae may also be transferred in ships' ballast water, being released into harbours or bays. Adult males are known to migrate from wintering grounds to mating areas and have been recorded to move over 10 km in one day, with a single year movement of up to 425 km.

**Reproduction**

Mating occurs during spring in shallow coastal areas. Females brood eggs underneath their tail for approximately 11 months, carrying 15,000 – 500,000 eggs. The larvae hatch in early winter and spring. Larval settlement occurs during late July/August in near shore habitats.

**Known Predators/Herbivores**

Larvae and juvenile red king crabs are preyed upon by a variety of fish and other crabs. Adult cod prey upon both small and large king crab, but as the crab grows in size, the number of potential predators decreases. Sea otters have been observed feeding on mature red king crab in its native habitat but no known predators occur in GB.

**Resistant Stages**

None known.

**Habitat Occupied in GB**

Not currently known in GB. However, rocky reef habitat and large shallow inlets and bays with coarse substrate and epifaunal cover in GB waters would provide suitable habitat for settlement of glaucothoe (transitional stage between larvae and juvenile crab). Sand-muddy substrate habitat
for adult red king crabs is widespread around GB.

**Distribution: Paralithodes camtschaticus, Red King Crab**

The red king crab is native to the Okhotsk and Japan Sea, Bering Sea and northern Pacific. Non-native range includes the Barents Sea and Norwegian waters. No GB records to date.

**Impacts: Paralithodes camtschaticus, Red King Crab**

**Environmental Impact**

Impacts to native benthic fauna would likely be significant as the red king crab is a voracious, omnivorous, opportunistic feeder. In Norway it is reported that scallop beds and flatfish populations are being reduced due to predation by the red king crab. It has been suggested that intensive predation by large red king crab populations may explain the low biomass of benthos in the south-eastern Bering Sea shelf compared to the north-eastern sea shelf.

**Health and Social Impact**

A successful red king crab fishery was established in the East Barents Sea region during the 1960s and 1970s. However, there is a potential for fishers' livelihoods to be affected through the crabs' entanglement in gear and predation on bait/catch, and an element of danger to fishermen through injury when detangling crabs from fishing nets.

**Economic Impact**

Commercial shellfish production (including scallops and mussels) may be affected due to predation by red king crab. While the red king crab is a valuable fishery resource in both its native range and the Barents Sea, bycatch problems are commonly reported with crabs becoming entangled in and damaging fishing gear, filling nets or eating the catch.

**References & Links: Paralithodes camtschaticus, Red King Crab**

**Identification**


**Biology, ecology, spread, vectors**


**Management and impact**


**General**