

A review of the ever increasing threat to European crayfish from non-indigenous crayfish species



Non-indigenous crayfish species (NICS) in Europe now outnumber indigenous crayfish species (ICS) 2:1, and it has been predicted that they may dominate completely in the next few decades unless something is done to protect them. Of the ten NICS introduced at least nine have become established in areas occupied by four of the five ICS. A decline in stocks of ICS has been recorded in many countries in the face of increasing populations of NICS. Most European countries retain at least one ICS but all are under threat from habitat loss, deteriorating water quality, overfishing, climate change, and most importantly from NICS and crayfish plague. The threat to ICS is so great in some countries that "ark"sanctuary sites are being established. The three most widely-spread NICS are the North American species: *Pacifastacus leniusculus*, *Orconectes limosus* and *Procambarus clarkii*. These can be considered as "Old NICS", which were introduced before 1975, compared with the "New NICS", which were introduced after 1980, such as the North American species: *Orconectes immunis*, *Orconectes juvenilis*, *Orconectes virilis*, *Procambarus* sp. and *Procambarus acutus*; and the Australian species: *Cherax destructor* and *Cherax quadricarinatus*, all of which have much narrower

ranges in Europe. The North American species are potentially capable of acting as vectors of crayfish plague. Outbreaks of this disease occur regularly where there are high concentrations of vectors. In addition to the NICS currently established in the wild, a further threat exists through the aquarium trade, where many American and Australian species are available via the internet and in aquarist centres. Owners of such species may discard them into the freshwater environment when they grow too big as with some *Cherax* spp. and *Orconectes* spp., or multiply too frequently as with *Procambarus* sp. (a parthenogenetic species). A conceptual model is presented as a possible way forward for protecting the future survival of ICS in Europe.

Auteurs du document : D.M. Holdich, J.D. Reynolds, C. Souty-Grosset, P.J. Sibley

Obtenir le document : EDP Sciences

Mots clés : Europe, crayfish, indigenous, non-indigenous, plague, arks, model, Europe, écrevisse, indigène, non indigène, peste de l'écrevisse, sanctuaire, modèle

Thème (issu du Text Mining) : SCIENCES EXACTES SCIENCES HUMAINES

Date : 2010-02-19

Format : text/xml

Source : <https://doi.org/10.1051/kmae/2009025>

Langue : Anglais

Télécharger les documents : <https://www.kmae-journal.org/10.1051/kmae/2009025/pdf>

Permalien : <https://www.documentation.eauetbiodiversite.fr/notice/a-review-of-the-ever-increasing-threat-to-european-crayfish-from-non-indigenous-crayfish-species0>

Evaluer cette notice: