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[\[PDF \(857K\)\]](#) [\[References\]](#)**Distribution and control status of the invasive signal crayfish
(*Pacifastacus leniusculus*) in Japan**[N. USIO](#)¹⁾, [Kazuyoshi NAKATA](#)²⁾, [Tadashi KAWAI](#)³⁾ and [Satoshi KITANO](#)⁴⁾

- 1) Research Center for Environmental Risk, National Institute for Environmental Studies
- 2) Water Environment Research Group, Public Works Research Institute
- 3) Hokkaido Wakkanai Fisheries Experiment Station
- 4) Nagano Environmental Conservation Research Institute

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Abstract

On 1 February 2006, the American signal crayfish *Pacifastacus leniusculus* together with another American crayfish (*Orconectes rusticus*), *Cherax* (native to Australasia) and *Astacus* (native to Europe) were designated 'invasive alien species' (hereafter termed IAS) by the Ministry of the Environment of Japan. Under the IAS Act, raising, importing, transferring, releasing, sowing and planting live IAS (including eggs, seeds and/or organs) are strictly regulated. Mitigation of ecological impacts and control of IAS are also important components of the IAS Act. Here, we report the current distribution and control status of the signal crayfish in Japan for the purpose of future management planning. Signal crayfish were originally imported from the Columbia River basin in northwestern North America between 1926 and 1930. The official records and anecdotal evidence suggest that signal crayfish had been intentionally or unintentionally introduced into streams or lakes in Hokkaido (the northernmost island of Japan) and Honshu (the main island of Japan). Although some founder populations have since disappeared, signal crayfish have been rapidly expanding their distribution ranges in Hokkaido as well as in Honshu over the last few decades. As of July 2007, the signal crayfish is distributed along the northern, eastern and central parts of Hokkaido as well as in three prefectures (Fukushima, Nagano and Shiga Prefectures) in Honshu. Since the enforcement of the IAS Act, crayfish control has been started in Hokkaido (in four lakes from 2006 and in four further lakes or streams from

2007) using baited traps and/or by hand with the aid of SCUBA equipment. On the other hand, the townspeople of Imazu (Shiga Prefecture) are proposing to protect the signal crayfish in Tankai Reservoir because the population has a unique Japanese name due to its introduction history. We discuss some of the problems and possible future directions concerning crayfish control.

Key Words: [invasive species](#), [Invasive Alien Species Act](#), [signal crayfish](#), [Pacifastacus leniusculus](#), [eradication](#)

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