Porcellio scaber **System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Malacostraca	Isopoda	Porcellionidae

Common name woodlouse (English)

Synonym
Oniscus granulatus , Lamark 1818
Porcellio nigra , Say 1818
Porcellio brandlii , Milne-Edwardes 1840
Porcellio dubius , Koch 1840
Porcellio asper , Koch 1847
Porcellio montezumaex , Saussure 1857
Porcellio paulensis , Heller 1865
Porcellio seaber , Bate and Westwood 1868
Porcellio graniger , Miers 1876
Porcellio graniger , Biidde-Lund 1885

Similar species

Summary
The terrestrial crustacean Porcellio scaber was first recorded on the sub-Antarctic Marion Island during a survey in April 2001. Searches conducted between September 2001 and April 2002 yielded as many as 391 specimens including gravid females. There are concerns that P. scaber may have an impact on native invertebrates in its introduced range. For example, Gough Island's only indigenous terrestrial isopod Styloniscus australis is rare in lowland habitats where the introduced terrestrial isopod P. scaber is abundant; however it is abundant on upland sites where P. scaber is rare. P. scaber may also compete with primary native detritivores on Marion Island such as Pringleophaga marioni and earthworms.

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Species Description
The body of *Porcellio scaber* is densely covered with tubercles. Its colour is usually a very dark grey, but can also be quite red or variegated with yellow. Albino specimens have been recorded. The two joints of the flagellum are of the same length and together equal that of the last joint of the peduncle. Air-tubes are present on the outer plates of the first two abdominal appendages (Webb & Sillem 1906).

Lifecycle Stages
Juveniles are carried ventrally by the females characteristic of this species (Carefoot 1993, in Slabber & Chown 2002).

Habitat Description
Porcellio scaber not only inhabits litter stratum in forests, but also inhabits middens, gardens, and cellars in human habitations, preferring moist microclimates (Wang & Schreiber 1999). \r\n
Several studies have investigated the low-temperature tolerance of *P. scaber*. In the Palearctic, this species has a lower lethal temperature of approximately minus 4.6 degC (Tanaka and Udagawa 1993, in Slabber & Chown 2002) and can survive for at least 1 week at minus 2 degC, so long as individuals have access to food and have been previously exposed to relatively low, but not subzero, temperatures (Lavy *et al*. 1997, in Slabber & Chown 2002).

Reproduction
On Marion Island *Porcellio scaber* appears to be reproductively most active over the summer months from October until March (Slabber & Chown 2002). Day-length variation and low temperatures might be responsible for inducing seasonal reproduction (Slabber & Chown 2002).

Nutrition
Porcellio scaber feeds on detritus (Slabber & Chown 2002). On Marion Island *P. scaber* feeds on detritus including plant and animal remains, soil algae and fungi, as is the case with most isopods (Barnes 1980, Warburg 1993, Lavy *et al*. 2001, in Slabber & Chown 2002).

General Impacts
Porcellio scaber has an island wide range on Gough Island and introduced invertebrates form a large proportion of the invertebrate community. Introduced detritivores on Gough like *P. scaber*, lumbricid worms, and the millipede *Cylindroiulus latestriatus* can have long term effects on nutrient cycles of its peaty soils, that lack such species and have formed in the absence of rapid organic breakdown. Long term effects can include changes in flora and faunal communities (Jones *et al*. 2003).
There are concerns that *P. scaber* may have an impact on native invertebrates. For example, Gough Island's only indigenous terrestrial isopod *Styloniscus australis* is rare in lowland habitats where the introduced terrestrial isopod *P. scaber* is abundant; however it is abundant on upland sites where *P. scaber* is rare. *P. scaber* may also compete with primary native detritivores on Marion Island such as *Pringleophaga marioni* and earthworms (Jones *et al*. 2003).

Management Info
On Marion Island the most appropriate conservation strategy would be complete eradication of *Porcellio scaber*. This recommendation has been made to the Prince Edward Islands Management Committee, which oversees conservation at the islands (Marion and Prince Edward islands). Eradication attempts are now underway (Slabber & Chown 2002).

Pathway
Porcellio scaber may be moved to new locations through human-aided dispersal, for example, through the movement of ballast, rubble, agricultural products, compost and plants (Wang & Schreiber 1999, in Slabber & Chown 2002).

Principal source: Slabber, S. & S. L. Chown, 2002. The first record of a terrestrial crustacean, *Porcellio scaber* (Isopoda, Porcellionidae), from sub-Antarctic Marion Island. Polar Biol (2002) 25: 855–858

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BIBLIOGRAPHY

16 references found for **Porcellio scaber**

Managment information

Chown, Steven L.; Jennifer E. Lee and Justine D. Shaw, 2008. Conservation of Southern Ocean Islands: invertebrates as exemplars. Journal of Insect Conservation Volume 12, Numbers 3-4 / July, 2008 277-291

Cooper, J. & Ryan, P.G. 1994. Management Plan for the Gough Island Wildlife Reserve. Published by the Government of Tristan da Cunha, Edinvurgh, Tristan da Cunha

Jones, A.G., S.L. Chown, P.G. Ryan, N.J.M. Gremmen, K.J. Gaston. 2003. A review of conservation threats on Gough Island: a case study terrestrial conservation in the Southern Oceans. Biological Conservation 113 (2003) 75&#65533;87

Ryan, P.G. & Glass, J.P., 2001. Inaccessible Island Nature Reserve Management Plan Published by the Government of Tristan da Cunha, Edinburgh, Tristan da Cunha

Varnham, K. 2006. Non-native species in UK Overseas Territories: a review. JNCC Report 372. Peterborough: United Kingdom.
Summary: This database compiles information on alien species from British Overseas Territories.
Available from: http://www.jncc.gov.uk/page-3660 [Accessed 10 November 2009]

General information

Ashmole, P. & Ashmole, M. 2000. St Helena and Ascension Island: a natural history. Published by Anthony Nelson, Oswestry, Shropshire, UK.

Chilton, Charles, 1909. Additions to the Terrestrial Isopoda of New Zealand. Transactions. Volume 42, 1909
Summary: Available from: http://rsnz.natlib.govt.nz/volume/rsnz_42/rsnz_42_00_003280.pdf [Accessed 10 October 2008]

Frenot, Y., Chown, S.L., Whinam, J., Selkirk, P., Convey, P., Skotnicki, M. & Bergstrom, D. 2005. Biological invasions in the Antarctic: extent, impacts and implications. Biological Reviews 80 pp. 45-72.

Frenot, Yves, Steven L. Chown, Jennie Whinam, Patricia M. Selkirk, Peter Convey, Mary Skotnicki and Dana M. Bergstrom, 2005. Biological invasions in the Antarctic: extent, impacts and implications. Biol. Rev. (2005), 80, pp. 45&#65533;72.

Holdgate, M. W. 1965. The Fauna of the Tristan Da Cunha Islands M. W. Holdgate Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences, Vol. 249, No. 759 (Oct. 7, 1965), pp. 361-402 (article consists of 42 pages)

ITIS (Integrated Taxonomic Information System), 2009. Online Database *Porcellio scaber* Latreille, 1804
Summary: An online database that provides taxonomic information, common names, synonyms and geographical jurisdiction of a species. In addition links are provided to retrieve biological records and collection information from the Global Biodiversity Information Facility (GBIF) Data Portal and bioscience articles from BioOne journals.
Available from: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=93269 [Accessed 25 October 2009]

Pugh, P. J. A.; H. J. G. Dartnall and S. J. Mcinnes, 2002. The non-marine Crustacea of Antarctica and the Islands of the Southern Ocean: biodiversity and biogeography. Journal of Natural History, 2002, 36, 1047&#65533;1103

Slabber, S. & S.L. Chown, 2002. The first record of a terrestrial crustacean, *Porcellio scaber* (Isopoda, Porcellionidae), from sub-Antarctic Marion Island. Polar Biol (2002) 25: 855&#65533;858

Valdon R. Smith, 2008. Energy flow and nutrient cycling in the Marion Island terrestrial ecosystem: 30 years on. Polar Record 44 (230): 211&#65533;226 (2008). Printed in the United Kingdom. doi:10.1017/S0032247407007218 211

Wang, Magnus and Arnd Schreiber, 1999. Population genetics of the woodlouse *Porcellio scaber* Latr. (Isopoda: Oniscoidea) in central Europe: passive dispersal and postglacial range expansion . Can. J. Zool. 77: 1337&#65533;1347 (1999)
Summary: Available from: http://article.pubs.nrc-cnrc.gc.ca/ppv/RPViewDoc?issn=1480-3283&volume=77&issue=9&startPage=1337 [Accessed 11 August 2010]

Webb, Wilfred Mark, & Charles Sillem. 1906. The British Woodlice, being a monograph of the terrestrial isopod Crustacea occurring in the British Islands. London Duckworth & Co.