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Subject: Ants to Hawaii

Change in Quarantine Action Policy for Ants Intercepted from
Commodities Destined to the State of Hawaii

USDA, APHIS, PPQ, National Identification Services, April 10, 2002

Policy Change. Effective immediately, all species of ants (Formicidae) intercepted at U.S. ports of entry and destined to, or through, the State of Hawaii require quarantine action and are considered reportable if :

- (1) they are not already established and widespread in Hawaii and
- (2) life stages found in a shipment indicate the ability to reproduce (see below).

1) The following ant species are currently established and widespread in Hawaii. No action is required if these species are intercepted and positively identified.

Anoplolepis gracilipes (F. Smith, 1857)) name change for A. longipes
Camponotus variegatus (F. Smith, 1858)
Cardiocondyla emeryi Forel, 1881
Cardiocondyla nuda (Mayr, 1866)
Cardiocondyla venustula Wheeler, 1908
Cardiocondyla wroughtonii (Forel, 1890)
Cerapachys biroi Forel, 1907
Hypoponera opaciceps (Mayr, 1887)
Hypoponera punctatissima (Roger, 1859)
Hypoponera zwaluwenburgi (Wheeler, 1933)
Leptogenys falcigera Roger, 1861
Monomorium destructor (Jerdon, 1851)
Monomorium floricola (Jerdon, 1851)
Monomorium sechellense Emery, 1894) name change for M. fossulatum
Monomorium liliuokalanii (Forel, 1899)) name change for M. minutum
Monomorium pharaonis (Linnaeus, 1758)
Paratrechina bourbonica (Forel, 1886)
Paratrechina longicornis (Latreille, 1802)
Paratrechina vaga (Forel, 1901)
Pheidole megacephala (Fabricius, 1793)
Plagiolepis alluaudi Emery, 1894 Poner a swezeyi
(Wheeler, 1933) Quadristruma emmae (Emery, 1890)
Solenopsis geminata (Fabricius, 1804)
Solenopsis papuana Emery, 1900
Stumigenus godeffroyi Mayr, 1866
Strumigenys lewisi Cameron, 1886
Strumigenys rogeri Emery, 1890
Tapinoma melanocephalum (Fabricius, 1793)
Technomyrmex albipes (F. Smith, 1861)
Tetramorium bicarinatum (Nylander, 1846)
Tetramorium simillimum (F. Smith, 1851)
Tetramorium tonganum Mayr, 1870
Trichoscapa membranifera (Emery, 1869)

2) Do not take action routinely when worker ants alone are found in a shipment. One of the following criteria must be met before taking action.

- * Reproductive queen present (with or without workers).
- * Workers with eggs, larvae, or pupae present.
- * Workers only are present in shipments that cannot be thoroughly inspected and with conditions conducive to colony survival (e.g. container shipments where soil might be present, with root crops, earth moving equipment, etc.).

Review of Hawaiian Ant Pest Risk Analysis and Justification for New Action Policy.

National Identification Services (NIS) evaluated a Pest Risk Analysis (PRA) conducted by the Hawaii Ant Group in cooperation with APHIS Policy and Program Development staff on the effects of introduction of exotic ants to the Hawaiian Islands. To address the proposed policy, NIS considered the potential impact of exotic ants on the Islands and the impact on trade that a more restrictive policy would impose.

NIS accepts the proposal that exotic ant species not present or widely distributed on the Hawaiian Islands should be excluded from Hawaii. The proposal explains that ants could not have co-evolved with native flora and fauna in Hawaii because the State has no native ant species. Consequently, plants and animals on the Islands are particularly susceptible to herbivory, predation and competition from ants. This susceptibility is evidenced by a number of publications that document serious impacts caused by introduced ant species in Hawaii. This proposal would protect Hawaii from many ant taxa that PPQ currently considers non-quarantine significant.

We could not possibly evaluate each of the many thousands of ant species exotic to Hawaii. Nonetheless, the PRA indicates that virtually any exotic ant species can threaten the Islands. The PRA noted that because the delicate Hawaiian ecosystems did not evolve with native ants, exotic ant species pose multiple threats to these systems. Herbivorous species pose potential direct impacts as agricultural pests or by feeding on endangered or threatened plants (e.g. *Atta* spp.). Other ants may displace native ground-dwelling bees that are sole pollinators of threatened native plants. A number of ant species displace large amounts of soil, significantly changing ecosystems. When introduced into new areas, ant species become more aggressive, and their impact is thereby more pronounced.

Although the literature contains numerous examples of adverse impacts caused by ants, the Hawaii Ant Group PRA cited one paper that described how three species of introduced ants caused multiple extinctions of native plant and animal species in Hawaii. Two of those ant species were not actionable under previous APHIS policy.

Ants are rarely intercepted with cargo imported into Hawaii. The PIN-309 database contains records of the actionable taxa of ants considered as quarantine pests. From 1985 -2002, PIN-309 records indicate only 2 ant interceptions resulting from PPQ inspections on commodities imported into Hawaii. We do not have records for formerly non-significant ant taxa that were intercepted during that period. However, we know from collective experience that few shipments are held for identification of intercepted ants, in general. Furthermore, this policy parallels current policy of the State of Hawaii Department of Agriculture. Therefore, we expect that the impact on trade resulting from enacting this policy will be negligible.

Primary Reference.

The Hawaii Ant Group. 2001. Request and analysis to change the quarantine action policy for ants moving into, or through, the State of Hawaii. Unpubl. report. 30p.

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