

1. PaDIL Species Factsheet



Scientific Name:

Lepidosaphes ulmi (Linnaeus, 1758)
(Hemiptera: Diaspididae)

Common Name

Apple Mussel Scale

Live link: <http://www.padil.gov.au/maf-border/Pest/Main/141287>

Image Library

New Zealand Biosecurity

Live link: <http://www.padil.gov.au/maf-border/>

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Biosecurity New Zealand

Tiakitanga Pūtaiao Aotearoa

MPI (Ministry for Primary Industries)

<http://www.biosecurity.govt.nz/>

2. Species Information

2.1. Details

Specimen Contact: New Zealand Arthropod Collection - nzac@landcareresearch.co.nz

Author: Henderson, R. C. & Crosby, T. K.

Citation: Henderson, R. C. & Crosby, T. K. (2011) Apple Mussel Scale (*Lepidosaphes ulmi*) Updated on 4/10/2014 Available online: PaDIL - <http://www.padil.gov.au>

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2.2. URL

Live link: <http://www.padil.gov.au/maf-border/Pest/Main/141287>

2.3. Facets

Commodity Overview: Horticulture

Commodity Type: 1 Other, Cruciferous produce, Fabaceous produce, Grapes, Rosaceous produce, Sapindaceous produce

Groups: Bugs

Status: NZ - Exotic

Pest Status: 0 Unknown

Distribution: Afrotropic, Australasia, Indo-Malaya, Nearctic, Neotropic, Oceania, Palearctic

Host Family: Aceraceae, Agavaceae, Anacardiaceae, Apocynaceae, Aquifoliaceae, Araliaceae, Arecaceae, Asclepiadaceae, Asteraceae, Berberidaceae, Betulaceae, Bignoniaceae, Brassicaceae, Buxaceae, Cannabaceae, Caprifoliaceae, Celastraceae, Chenopodiaceae, Cistaceae, Cornaceae, Cupressaceae, Ebenaceae, Elaeagnaceae, Ericaceae, Euphorbiaceae, Fabaceae, Fagaceae, Gentianaceae, Geraniaceae, Ginkgoaceae, Grossulariaceae, Hydrangeaceae, Iridaceae, Juglandaceae, Lardizabalaceae, Lauraceae, Loranthaceae, Magnoliaceae, Moraceae, Myrtaceae, Oleaceae, Paeoniaceae, Pinaceae, Platanaceae, Plumbaginaceae, Poaceae, Polemoniaceae, Polygonaceae, Punicaceae, Ranunculaceae, Rhamnaceae, Rosaceae, Rutaceae, Salicaceae, Sapindaceae, Solanaceae, Tamaricaceae, Taxaceae, Theaceae, Thymelaeaceae, Tiliaceae, Viscaceae, Vitaceae, Adoxaceae, Commelinaceae, Hippocastanaceae, Hypericaceae, Staphyleaceae, Styracaceae

2.4. Other Names

Appletree Bark Louse

Oyster-shell Bark-louse of the Apple

Oystershell Scale (in U.S.A.)

2.5. Diagnostic Notes

Source: Henderson (2011) [See Web Links tab]

Live Appearance and Habitat

Female scale cover elongate mussel shell-shaped, rich mahogany brown with a pale section at posterior end, terminal exuvia more golden-brown; female body pale with yellow pygidium, eggs white. On stems, leaves, and fruit of host plants, often in massed populations.

****Diagnosis****

Adult female, body elongate, widest at abdomen with well developed prepygidial lobes; length 0.32–1.42 mm, width 0.5–0.69 mm. Median lobes (L1) about as wide as long, notched each side, with short paraphyses each side; 1 pair of setae and 1 pair of gland spines in medial space; L2 bilobed, medial lobule 2 times as wide as lateral lobule and with a small notch; L3 short, wide, dentate. Gland spines between lobes. 6 pairs of marginal macroducts.

Dorsal ducts of 1 size, smaller than marginal macroducts, numerous on submedial pygidium VI and VII and numerous on submedian-submargin of V to III then on submargin as far forward as metathorax. With small dorsal bosses on submedian abdomen II to VI. With a stout spine on margin at angle between abdominal segments II to IV. Anal opening round, 15 μm , as long as wide, positioned near anterior of pygidium, 180–195 μm from posterior margin.

Ventral ducts similar to dorsal ducts present submarginally on prepygidial segment III–I and more numerous on thorax, with a band extending across body between posterior spiracles. Microducts scattered on submargins and submedian of abdomen and head. Gland spines on margins of free abdominal lobes reducing to gland tubercles to segment I. Antenna with 1 or 2 long setae. Anterior spiracles each with 5–6 trilocular pores; posterior spiracles without pores. Perivulvar pores in 5 moderately elongate groups. Vulva position posterior to that of anal opening, about middle of pygidium, 100–115 μm from posterior margin.

****Source:** [ScaleNet](<http://scalenet.info>)******

****Keys****

Miller & Davidson (2005). Ghabbour 2001: 78 (first instar) [Key to first-instar nymphs of three species of *Lepidosaphes*]; Gill 1997: 168 (female) [Key to California species of *Lepidosaphes*]; Kosztarab 1996: 517 (female) [Key to species of Northeastern North American *Lepidosaphes*]; Danzig 1993: 247 (female) [Key to species of *Lepidosaphes*]; Kosztarab & Kozár 1988: 347 (female) [Key to species of *Lepidosaphes*]; Danzig 1986a: 355 (female) [as *Lepidosaphes (Lepidosaphes) ulmi*; Key to species of *Lepidosaphes*]; Chou 1982: 156 (female) [Key to Chinese species of *Lepidosaphes*]; Paik 1978: 338 (female) [Key to species of *Lepidosaphes*]; McDaniel 1972a: 323 (female) [Key to the Texas species of the genus *Lepidosaphes*]; Danzig 1971d: 841 (female) [Key to species of the family Diaspididae]; Takagi 1960: 93 (female) [Key to species of *Lepidosaphes*]; Bustshik 1958: 185 (female) [Species of the tribe Diaspidini]; Ezzat 1958: 245 (female) [as *Lepidosaphes ulmi*; Key to adult female *Lepidosaphes*]; Gómez-Menor Ortega 1956: 73 (female) [as *Lepidosaphes ulmi* v. *oleae*; Key to species of *Lepidosaphes* of Spain]; McKenzie 1956: 32 (female) [Key to species of *Lepidosaphes*]; Takahashi 1955e: 69 (female) [Key to species of *Lepidosaphes*]; Balachowsky 1954e: 33 (female) [Tableau de détermination des espèces du g. *Lepidosaphes*]; Ferris 1942: SIV-446:56 (female) [Key to species of *Lepidosaphes*]; Borchsenius 1938: 138 (female) [Key to species of *Lepidosaphes* in the Far-eastern Region of the SSSR]; Kuwana 1925a: 4 (female) [Key to species of *Lepidosaphes*]; Britton 1923: 378 (female) [Key to Connecticut species of *Lepidosaphes*]; Leonardi 1903: 29 (female) [as *Mytilaspis nivea* *M. pomorum*; Key to species of *Mytilaspis*]; Cockerell 1899f: 14 (female) [as *Mytilaspis pomorum*; Australian species of *Mytilaspis*].

2.6. References

- Henderson, R. C. (2011). Diaspididae (Insecta: Hemiptera: Coccoidea). *_Fauna of New Zealand 66_*, 275 pp. [See Web Links tab]
- Miller, D.R. & Davidson, J.A. (2005). *_Armored scale insect pests of trees and shrubs_*. Cornell University Press, N.Y. 442 pp.

2.7. Web Links

Scale Net: <http://scalenet.info/validname/Lepidosaphes/ulmi/>

Henderson (2011):

<http://www.landcareresearch.co.nz/research/biosystematics/invertebrates/faunaofnz/Extracts/FNZ66/FNZ66ind.asp>

3. Diagnostic Images



Slide mounted
Abdomen - Female: Rosa Henderson
 Landcare Research



Slide mounted
Antenna - Female: Rosa Henderson
 Landcare Research



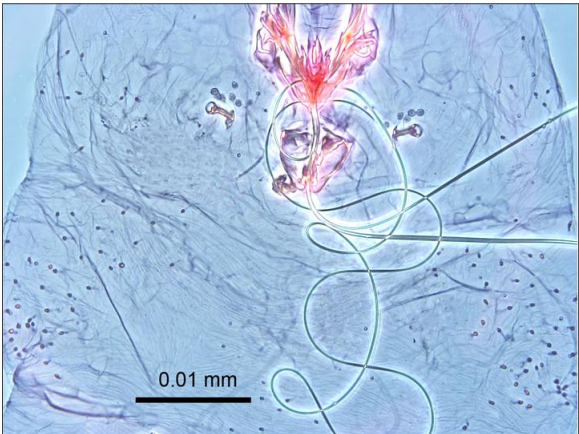
Slide mounted
Full body - Female: Rosa Henderson
 Landcare Research



Young adult female with scale cover overturned
Full body - Female In life: Rosa Henderson
 Landcare Research



Slide mounted
Lateral Abdomen - Female: Rosa Henderson
 Landcare Research

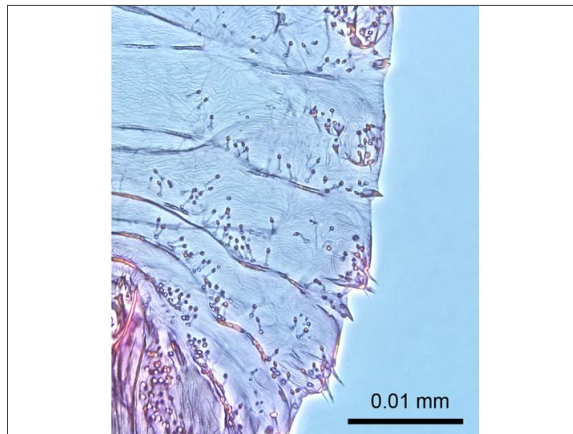


Slide mounted
Mouth and Spiracle - Female: Rosa Henderson
 Landcare Research

4. Other Images



Adult females on stem and fruit of *Crataegus monogyna*
In life - Image: Rosa Henderson Landcare Research



Slide mounted
Lateral Abdomen 20x - Female: Rosa Henderson Landcare Research

Results Generated:

Wednesday, August 10, 2022
