**Landcare Research Plant-SyNZ Fungus and Invertebrate Recording Form**

**Harareke/Lowland flax – *Phormium tenax***

(Hemerocallidaceae) (Angiosperm - monocotyledon: Day lily family).

**Biostatus**: endemic.

Plant species code: 442

**Habitat being surveyed**

**Locality**

**Names of surveyors**

**Date of survey** **Plot number** [ ] **EXPERT LEVEL**

[tick if present ]

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1 F | [ ] | *Zasmidium dianellae* (Sawada & Katsuki) U. Braun (Ascomycota: Dothideomycetes: Capnodiales: Mycosphaerellaceae) Flax Zasmidum leaf spot. Biostatus: indigenous, non-endemic | Fungus; fuzzy edge leaf spots, dark on underside of leaf with dark brown hyphae; may have matching discoloured areas on upper side of leaf. Present all year. | s | n |
| 2 F | [ ] | *Phormium long narrow leaf streak sp. tenax* Flax long leaf streak. Biostatus: unknown | Long narrow streaks on live leaves. Cause unknown. Present all year. | l | u |
| 8 PR | [ ] | *Halmus chalybeus* (Coleoptera: Coccinellidae) Steelblue ladybird: Beetle. Biostatus: adventive | Metalic blue-green adult ladybird associated with colonies of flocculent flax scale; hairy larvae also feeding in colonies of scale. Present in spring and summer. | s | a |
| 9 F | [ ] | *Phormium short black leaf streak sp. 'tenax'* Flax short black leaf streak. Biostatus: unknown | Short, dark and wide streaks with pointed ends, on both sides of leaves, often with chlorotic (yellow) outer edge, underside develops central pale strip with 'fruiting bodies'. On live leaves. Cause unknown. Present all year. | l | u |
| 10 F | [ ] | *Phormium fuzzy oval leaf spots sp. 'tenax'* Flax fuzzy oval leaf spot. Biostatus: unknown | Fuzzy oval spots on live and dead leaves. Cause unknown. Present all year. | l | u |
| 10 PR | [ ] | *Cryptolaemus montrouzieri* (Coleoptera: Coccinellidae) Mealybug ladybird: Beetle. Biostatus: adventive | Black and mid-brown adult ladybird associated with mealybugs; white waxy mealybug-like larvae also feed on mealybugs. Present in spring and summer. | l | a |
| 15 F | [ ] | *Phormium short narrow leaf spots sp. 'tenax'* Flax short narrow leaf spots. Biostatus: unknown | Short, narrow leaf spots, restricted to space between veins, on both sides of leaf. On live leaves. Cause unknown. Present all year. | l | u |
| 41 PR | [ ] | *Rhyzobius fagus* (Coleoptera: Coccinellidae) Scale-eating ladybird: Beetle. Biostatus: native | Black hairy adult ladybird associated with colonies flocculent flax scale. Bicoloured larvae also feeds on colonies of scale insects. Present all year. | l | n |
| 79 PR | [ ] | *Batrachedra arenosella* (Lepidoptera: Batrachedridae) Flax scale eating caterpillar: Moth or Butterfly. Biostatus: endemic | Caterpillar feeds on scale insects. Lives under webbing covered with bits of scale insects. Eats scales near webbing. Cocoons under webbing. Webbing present all year. | l | e |
| 103 F | [ ] | *Phormium stem bird claw scratches sp. 'tenax'* Flax stem bird scratches. Biostatus: unknown | Birds, on live and dead flower stalks; scatches from bird claws on green stems resulting in pale raised elliptical shapes and pale irregular grooves in dead stems. | s | u |
| 126 PR | [ ] | *Phytoseiulus persimilis* (Acari: Mesostigmata: Phytoseiidae) Mite. Biostatus: adventive | Red predatory mites in colonies of web-spinning mites. All active stages red. Large oval orange eggs. Present all year. | e | a |
| 135 F | [ ] | *Propolis sp.* (Ascomycota: Leotiomycetes: Rhytismatales: Rhytismataceae). Biostatus: endemic | Fungus, clear elyptical areas with dark boundary on green leaves, on the underside small rasied areas with slits opening with grey interior. Present in summer and autumn. | e | e |
| 163 PR | [ ] | *Stethorus sp.* (Coleoptera: Coccinellidae) Spidermite ladybird: Beetle. Biostatus: unknown | Small black adult ladybirds and small white or dark larvae in web-spinning mite colonies. Present all year. | e | u |
| 185 F | [ ] | *Septobasidium sp.* (Basidiomycota: Pucciniomycetes: Septobasidiales: Septobasidiaceae). Biostatus: unknown | Fungus, associated with a scale insect that lives in the fold of plant leaves. Present all year. | s | u |
| 189 PR | [ ] | *Trite planiceps* (Araneae: Salticidae) Blackheaded jumping spider: Spider. Biostatus: endemic | Jumping spider; brown body, black head, long black front legs; lives on flax plants. | l | e |
| 296 PR | [ ] | *Diomus sp. nr subclarus* (Coleoptera: Coccinellidae) Diomus mealybug ladybird: Beetle. Biostatus: adventive | Distinctive oval larvae that feed on mealybugs on leaves and under leaf bracts, adults black, males have yellow on head and pronotum. Present in summer and autumn. | e | a |
| 298 PR | [ ] | *Nephus binaevatus* (Coleoptera: Coccinellidae) Dusky lady beetle: Beetle. Biostatus: adventive | Black adults with a pair of red spots on elytra, larvae look like mealybugs, body orange, feed on mealybugs under leaf bracts on flowing stems. Present in summer. | e | a |
| 348 F | [ ] | *Colletotrichum sp. 'Phormium'* (Ascomycota: Sordariomycetes: Glomerellales: Glomerellaceae) Flax colletotrichum. Biostatus: endemic | Fungus: clear areas on upperside of live leaves, small black spots on underside of leaf, may have orange extrusions on edge of spotted area. Present late summer, autumn and winter. | e | e |
| 403 H | [ ] | *Anzaspis cordylinidis* (Hemiptera: Diaspididae), Cordyline scale: Sucking bug. Biostatus: endemic | Narrow white scale insects mainly on underside of leaves. No flocculent wax. Present all year. | e | e |
| 465 H | [ ] | *Poliaspis floccosa* (Hemiptera: Diaspididae), Flocculent flax scale: Sucking bug. Biostatus: endemic | White scale insects usually in clusters with flocculent white wax. Mainly on underside of leaves. Present all year. | s | e |
| 652 H | [ ] | *Balanococcus diminutus* (Hemiptera: Pseudococcidae), New Zealand flax mealybug: Sucking bug. Biostatus: endemic | Mealybugs living between leaves. Body dark red, under powdery white wax, 2 darker lines on body. 1 pair of wax caudal filaments. Present all year. | e | e |
| 701 H | [ ] | *Paracoccus glaucus* (Hemiptera: Pseudococcidae), Long egg-sac mealybug: Sucking bug. Biostatus: endemic | Mealybugs on underside of leaves. Body oval, pale green or orange, under powdery white wax. Fine wax filaments at the anterior and posterior ends of body. Present all year. | l | e |
| 719 H | [ ] | *Pseudococcus longispinus* (Hemiptera: Pseudococcidae), Long-tailed mealybug: Sucking bug. Biostatus: adventive | Mealybugs on underside of leaves. Body oval, greyish pink under powdery white wax. 17 pairs of lateral long wax filaments, the posterior 2 pairs as long as body. Present all year. | l | a |
| 888 H | [ ] | *Thrips obscuratus* (Thysanoptera: Thripidae), New Zealand flower thrips: Thrips. Biostatus: endemic | Thrips, adults black and white and pale nymphs, present under bracts covering flower buds and in flowers. | l | e |
| 889 H | [ ] | *Thrips phormiicola* (Thysanoptera: Thripidae), New Zealand flax thrips: Thrips. Biostatus: endemic | Thrips at base of youngest leaves. | e | e |
| 908 H | [ ] | *Tetranychus moutensis* (Acari: Prostigmata: Tetranychidae), Flax spidermite: Mite. Biostatus: endemic | Web-spinning mites on underside of leaves. Mites greenish colour, eggs orange-red. Feeding causes pale areas of leaf. Present all year. | l | e |
| 975 H | [ ] | *Tetra cookiani* (Acari: Prostigmata: Eriophyidae), Flax russet mite: Mite. Biostatus: endemic | Gall mite living on young leaves. V-shaped pattern of discolouration. Present all year. | l | e |
| 1014 H | [ ] | *Tenuipalpidae sp.* (Acari: Prostigmata: Tenuipalpidae), Mite. Biostatus: endemic | Red flat mites on underside of leaves, oval red eggs | e | e |
| 1047 H | [ ] | *Aspidiotus nerii* (Hemiptera: Diaspididae), Oleander scale: Sucking bug. Biostatus: adventive | Oval pale brown scale on leaves. Present all year. | e | a |
| 1275 H | [ ] | *Liothula omnivora* (Lepidoptera: Psychidae), Common bag moth: Moth or Butterfly. Biostatus: endemic | Bag moth. Caterpillar in case makes round holes in leaves. | l | e |
| 1766 H | [ ] | *Anagotus fairburni* (Coleoptera: Curculionidae), Flax weevil: Beetle. Biostatus: endemic | Smooth rounded notches on edge of leaves. Adults are large weevils. | e | e |
| 1833 H | [ ] | *Leucaspis sp. 1* (Hemiptera: Diaspididae), Flax leaf-groove scale: Sucking bug. Biostatus: endemic | Scale insect. Mainly lives in fold of leaves. Often infected by a fungus. Present all year. | e | e |
| 1884 H | [ ] | *Orthoclydon praefectata* (Lepidoptera: Geometridae), Flax looper: Moth or Butterfly. Biostatus: endemic | Caterpillars make windows in leaves. Windows present all year. | s | e |
| 1887 H | [ ] | *Zeoliarus atkinsoni* (Hemiptera: Cixiidae), Flax planthopper: Sucking bug. Biostatus: endemic | Plant hopper living at base of plants. Feeding nymphs are surrounded by flocculent white wax. | e | e |
| 1888 H | [ ] | *Scolypopa australis* (Hemiptera: Ricaniidae), Passion vine hopper: Sucking bug. Biostatus: adventive | Plant hopper nymphs with fluffy tails and adults with black and clear wings. Present in summer. | s | a |
| 1891 H | [ ] | *Phormium seed pod fly sp. (Cumber 1954)* (Diptera: Cecidomyiidae), Phormium seed pod midge: Fly. Biostatus: endemic | Gall fly. Larvae feed on seeds in green pods. | e | e |
| 1892 H | [ ] | *Resseliella sp. of (Cumber 1954)* (Diptera: Cecidomyiidae), Fly. Biostatus: endemic | Gall fly; pink to red larvae feeding in slime at base of young leaves. Feeding causes chlorosis and grooves on leaves, and red or black, jagged holes in expanded leaves. | e | e |
| 2710 H | [ ] | *Siphanta acuta* (Hemiptera: Flatidae), Green planthopper: Sucking bug. Biostatus: adventive | Green adult plant hoppers. Nymphs green or or off-white with fluffy wax tail that usually lies flat. Mainly in summer. | s | a |
| 4256 H | [ ] | *Phormium gall mite sp. Martin 2012* (Acari: prostigmata: ), Phormium leaf gall mite: Mite. Biostatus: endemic | Gall mite. White skins on underside of leaves in areas with dark brown fungus. | e | e |
| 4475 H | [ ] | *Melanophthalma sp. 'phormium'* (Coleoptera: Latridiidae), Flax fungus beetle: Beetle. Biostatus: endemic | Beetle adults and larvae on underside of leaves and feeding on brown fungus. | e | e |
| 4858 H | [ ] | *Tmetolophota sp.* (Lepidoptera: Noctuidae) Leaf notcher: Moth or Butterfly. Biostatus: endemic | Caterpillar makes notches on edge of leaves. Present all year. | s | e |
| **You may also see** | | |  |  |  |
| 55 PR | [ ] | *Cecidomyiidae sp. 'predators'* (Diptera: Cecidomyiidae) Fly. Biostatus: unknown | Fly, red larvae feed on mealybugs, pupates in colony, clear pupal case visible after adult has emerged. | m | u |
| 59 PR | [ ] | *Serangium maculigerum* (Coleoptera: Coccinellidae) Citrus whitefly ladybird: Beetle. Biostatus: adventive | Small black adult ladybirds with two red spots associated with colonies of peppercorn scale insects; larvae pale and covered with long hairs, feed on young scale insects. Present when there are young scale insects. | m | a |
| 234 PR | [ ] | *Syrphidae sp.* (Diptera: Syrphidae) Fly. Biostatus: unknown | Fly, predatory larva feeds on mealybugs, pupates on leaf. Present in spring, summer and autumn. | m | u |
| 262 F | [ ] | *Hirsutella sp.* (Ascomycota: Sordariomycetes: Hypocreales: Ophiocordycipitaceae) Branched insect fungus. Biostatus: unknown | Fungus: on dead adult or nymph passion vine hopper, Scolypopa australis. Fugus has long branched growths. Present late summer, autumn and winter. | m | u |
| 287 PR | [ ] | *Hoangus venustus* (Coleoptera: Coccinellidae) Flax mealybug ladybird: Beetle. Biostatus: endemic | Ladybird, adults associated with flax, may feed on mealybugs. | m | e |
| 546 H | [ ] | *Hemiberlesia rapax* (Hemiptera: Diaspididae), Greedy scale: Sucking bug. Biostatus: adventive | Scale insect, oval, beige, convex, higher at one end and tilted over at site of dark brown-black cap, on leaves, present all year. | m | a |
| 609 PA | [ ] | *Thripobius javae* (Hymenoptera: Eulophidae) Greenhouse thrips parasite: Wasp. Biostatus: adventive | Tiny wasp parasitoid. Naked black pupae in thrips colonies on underside of leaves. Present in summer and autumn. | m | a |
| 994 PA | [ ] | *Dryinus koebelei* (Hymenoptera: Dryinidae) Planthopper parasitoid: Wasp. Biostatus: adventive | Wasp, parasitoid of Siphanta, green planthopper; larva body protrudes between wing buds on one side on nymph. | m | a |
| 997 H | [ ] | *Heliothrips haemorrhoidalis* (Thysanoptera: Thripidae) Greenhouse thrips: Thrips. Biostatus: adventive | Silvering and black faecal droplets on leaves, present in summer and autumn. Found on Phormium cookianum | m | a |
| 1048 H | [ ] | *Saissetia coffeae* (Hemiptera: Coccidae) Hemispherical scale: Sucking bug. Biostatus: adventive | Oval brown scale, convex, rounded, light brown. Young scale with H-pattern. | m | a |
| 1229 H | [ ] | *Aphenochiton sp.* (Hemiptera: Coccidae), Sucking bug. Biostatus: endemic | Scale insect. Oval, usually thin, with wax plates. Present all year. | m | e |
| 2159 H | [ ] | *Aulacorthum solani* (Hemiptera: Aphididae), Foxglove aphid: Sucking bug. Biostatus: adventive | Aphids on plant. | m | a |
| 4133 H | [ ] | *Cicadidae sp.* (Hemiptera: Cicadidae) Cicada: Sucking bug. Biostatus: endemic | Cicada egg scars in leaves, made by adult female. | m | e |

**Landcare Research Plant-SyNZ Fungus and Invertebrate Recording Form**

**SUMMARY PAGE**

**Harareke/Lowland flax – *Phormium tenax***

(Hemerocallidaceae) (Angiosperm - monocotyledon: Day lily family).

**Biostatus**: endemic.

Plant species code: 442

**Habitat being surveyed**

**Locality**

**Names of surveyors**

**Date of survey** **Plot number** [ ] **EXPERT LEVEL**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Number Found for this level of skill | | | | |
| Herbivores (H) | Parasites (PA) | Predators (PR) | Fungi and other microorganisms (F) | Total |
|  |  |  |  |  |
| Number of additional finds | | | | |
|  |  |  |  |  |
| Total Number found | | | | |
|  |  |  |  |  |
| Total number that could have been found for this level of skill | | | | |
| 23 |  | 9 | 9 | 41 |
| Total number that could have been found | | | | |
| 29 | 2 | 13 | 10 | 54 |

**Biostatus Results Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Number Found for this level of skill | | | | |
| e  Endemic | n = native  Indigenous non-endemic | a  Adventive | u  Unknown | Total |
|  |  |  |  |  |
| Number of additional finds | | | | |
|  |  |  |  |  |
| Total Number found | | | | |
|  |  |  |  |  |
| Total number that could have been found for this level of skill | | | | |
| 23 | 2 | 9 | 7 | 41 |
| Total number that could have been found | | | | |
| 26 | 2 | 16 | 10 | 54 |