



Skinks of Otago



Otago
Regional
Council



SOUTHERN
LAKES
SANCTUARY

TŪHURA
Otago Museum

Tussock skink

Oligosoma chionochoescens

Other names: common skink, grass skink, southern grass skink (formerly)



Conservation status

Regional | At Risk: Declining

National | At Risk: Declining

Description

Body length: up to 82 mm snout-vent length (SVL) but usually <70 mm SVL. Intact tail equal to or longer than SVL.

Upper surfaces: pale-brown or caramel in colour, although they can rarely be olive-brown or black in colour, and usually feature brown or gold-brown stripes.

Side surfaces: have a dark-brown band that has smooth, or slightly notched, edges and is bordered by pale-brown or cream stripes.

Distribution

Tussock skink populations are widespread from coastal to alpine ecosystems, reaching elevations of approximately 1,700 metres above sea level. The species ranges from the Waitaki Valley southwards to Rakiura/Stewart Island and is widespread throughout most of Otago, including Ōtepoti/Dunedin, Oamaru, Palmerston, Alexandra, and many of the surrounding mountain ranges. In several locations, such as around Wānaka, Hāwea, the Lindis Pass, the Ida Range and near Naseby, they come into close contact with, or overlap with, southern grass skinks.

Lower surfaces: brown, grey, or brownish-yellow in colour, with a pale-grey, white, or brown throat and chin.

Feet: short toes with brown or grey soles
Eye colour: brown or cream



Ecology & natural history

Tussock skinks are primarily active during the day. They sun-bask to maintain their preferred body temperatures when the weather is suitable and can often be seen scurrying around to seek food and mates. At night, they hide underneath rocks and logs; in dense vegetation, rock crevices, and scree; and on other rocky slopes. Tussock skinks inhabit a variety of rocky and grassy habitats, but tend to prefer relatively damp areas. This species has been recorded in densities as high as 4000 individuals per hectare.

Female tussock skinks may reproduce annually and typically give birth to three to six offspring in summer. They mostly feed on a range of small invertebrates, including insects and spiders, and may opportunistically consume native fruits and nectar from flowers.

Conservation

Populations of the tussock skink can be found in fenced sanctuaries where introduced mammalian predators have been eliminated (except for the house mouse), such as Orokonui Ecosanctuary (near Ōtepoti/Dunedin) and Mokomoko Dryland Sanctuary (near Alexandra). The major threats to the tussock skinks are habitat modification, including by land development and fire, and introduced mammalian predators, such as rats, mice, stoats, ferrets, weasels, hedgehogs, feral cats, and pet cats.

Regional threat listing qualifiers:

The northern limit of its natural distribution is in the Otago region (Natural Range).



Tussock skink, (Ōtepoti). Photographed by Samuel Purdie

Identifying features

This elegant species of grassland skink was recently recognised as a distinct species from the southern grass skink (*Oligosoma aff. polychroma* Clade 5).

Southern grass skink

(*Oligosoma aff. polychroma* Clade 5):

Tussock skinks can be distinguished from southern grass skinks (*Oligosoma aff. polychroma* Clade 5) by their colouration, as tussock skinks are usually warm-brown in colour, whereas southern grass skinks are dark/faded brown. Additionally, tussock skinks usually have a striped upper surface, while southern grass skinks have a speckled or plain upper surface with faint stripes, or none at all. Both species have a lateral band, but the tussock skink's one has smooth edges, whereas the southern grass skink's band is rough-edged. Finally, tussock skinks sometimes have a longer and shallower snout than southern grass skinks.

McCann's skink (*Oligosoma maccanni*):

While tussock skinks are usually warm-brown in colour with a pale-brown/yellow belly and few speckles on their throat/chin, McCann's skinks are grey-brown in colour and have a pale-grey or white belly with a heavily speckled throat and chin.

Nevis skink (*Oligosoma toka*):

Tussock skinks usually have a brown to dull-yellow belly with a pale-brown throat/chin, whereas Nevis skinks have a mustard-yellow belly and a white throat/chin. Tussock skinks also usually have four large scales in the second row of scales above each eyelid vs. three in Nevis skinks.

Burgan skink (*Oligosoma burganae*):

Tussock skinks can be distinguished from Burgan skinks by their patterns and head scales, as tussock skinks usually have few or no speckles/flecks and four large scales in the second row of scales above each eyelid. In contrast, Burgan skinks have a speckled dorsal surface and three large scales in the second row of scales above each eyelid.

Eyres skinks (*Oligosoma repens*):

Tussock skinks can be distinguished from Eyres skinks by their coloration and head scales, as tussock skinks usually have a brown to dull-yellow belly with four large scales in the second row of scales above each eyelid, whereas the Eyres skink has a lemon-yellow belly and three large scales in the second row of scales above each eyelid.

Southern grass skink

Oligosoma aff. polychroma Clade 5

Other names: common skink, grass skink, drylands grass skink



Conservation status

Regional | At Risk: Declining

National | At Risk: Declining

Description

Body length: up to 72 mm snout-vent length (SVL), but typically <70 mm SVL. Intact tail slightly longer than SVL.

Upper surfaces: light to very dark brown in colour, with the back near uniform through to flecked, sometimes with a stripe running down it.

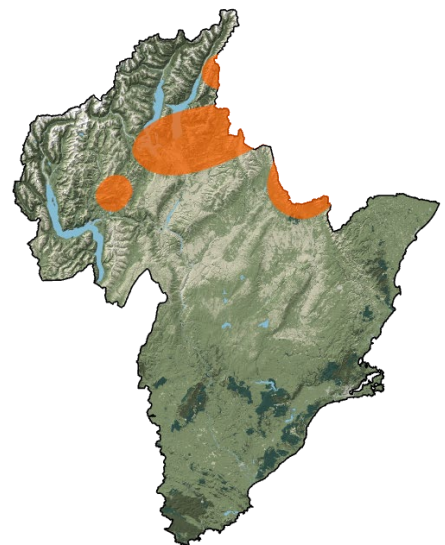
Side surfaces: typically have an indistinct brown band that usually has slightly notched edges.

Lower surfaces: belly colour is pale brown, grey, or dull yellow.

Eye colour: brown or cream

Distribution

Populations of the southern grass skink are found from the coast to alpine areas, reaching elevations of up to approximately 1,700 metres above sea level. The species is widely distributed from far northern and north-western Otago (e.g. the Wānaka area, Lindis Pass, Saint Bathans Range, and Waitaki Valley), through the Mackenzie Country, South Canterbury, and the coastal portion of the Canterbury Plains to Banks Peninsula. In mid-Canterbury, its distributional boundaries with the Canterbury grass skink (*Oligosoma aff. polychroma* Clade 4) are poorly understood. The southern grass skink's distribution does come into close contact with, and even overlaps, that of the tussock skink around Wānaka, the Lindis Pass, and in the mountain ranges in Oteake Conservation Park along the North Otago border.



Ecology & natural history

During the day, southern grass skinks sun-bask and actively forage when weather conditions are suitable. At night, they hide in retreats underneath stones and logs; in dense vegetation, rock crevices, and scree; or in other rocky habitats. Southern grass skinks inhabit a variety of rocky and grassy habitats but typically prefer relatively damp areas, such as along streams, rivers, shady gullies, and wetland edges. They are particularly abundant in damp habitats of the Mackenzie Country.

Female southern grass skinks may reproduce annually and typically give birth to three to six offspring in summer. Southern grass skinks mostly feed on small invertebrates, including insects and spiders, and may opportunistically consume native fruits and nectar from flowers.

Conservation

Southern grass skinks have received limited conservation attention. However, they appear to be widespread and abundant in some locations. Their major threats are habitat modification, including by land development and fire, and introduced mammalian predators, such as rats, mice, hedgehogs, weasels, ferrets, stoats, feral cats, and pet cats.

Regional threat listing qualifiers:

Otago is a national stronghold for the southern grass skink, with over 20% of their population found in the region (National Stronghold). The southern limit of their natural distribution is in the Otago region (Natural Range).



Southern grass skink. Photographed by Carey Knox

Identifying features

Southern grass skinks may be mistaken for other species of skink that occupy similar locations in Otago. The following characteristics are useful for identifying species that they may overlap in distribution with.

Tussock skinks (*Oligosoma chionochoescens*):

Whereas southern grass skinks have a speckled or plain upper surface with faint stripes, or none at all, tussock skinks usually have stripes. Both species have banded sides, but the southern grass skink's band has smooth edges, while the tussock skink's one is wavy or notched.

McCann's skink (*Oligosoma maccanii*):

Southern grass skinks can be distinguished from McCann's skinks by their colouration, as the former are usually warm-brown in colour, whereas the latter are grey-brown. Additionally, southern grass skinks have a pale-brown, grey, or dull-yellow belly with few speckles on their throat and chin, while

McCann's skinks have a pale-grey or white belly with a heavily speckled throat and chin.

Nevis skink (*Oligosoma toka*):

Southern grass skinks can be distinguished from Nevis skinks by their belly colouration, as southern grass skinks have a pale-brown, grey, or dull-yellow belly with a pale-brown throat/chin, which cannot be mistaken for the mustard-yellow belly and white throat/chin of the Nevis skink. Southern grass skinks also usually have four large scales in the second row of scales above each eyelid vs. three in Nevis skinks.

Rockhopper skink (*Oligosoma* "rockhopper"):

Rockhopper skinks have straight, or near straight, stripes on their sides, whereas the southern grass skink has wavy or notched side stripes. In addition, rockhopper skinks have smaller ears and lack speckling.

Oteake skink

(*Oligosoma* aff. *inconspicuum* "North Otago"):

It can be difficult to distinguish southern grass skinks from Oteake skinks, but the former have less black speckling on the body, a smaller ear size, and dull-yellow soles, while Oteake skinks have partially black soles.

McCann's skink

Oligosoma maccanni



Conservation status

Regional | Not Threatened

National | Not Threatened

Description

Body length: up to 73 mm snout-vent length (SVL), with intact tail longer than SVL.

McCann's skink is a familiar sight in many towns and rural areas.

This conspicuous species is typically grey through to faded brown in colour with blotches, and/or stripes. In Otago, most individuals are blotched with a pattern of lighter and darker patches along the back in a checkerboard-like formation, whereas in Canterbury (and occasionally along the North Otago border) most individuals have a prominent stripe down the centre of the back and no checkerboard patterning.

Distribution

McCann's skink is a very common skink species in the drier parts of the South Island (Southland, Otago, and Canterbury), ranging from low altitudes up to at least 1,700 metres above sea level.



Ecology & natural history

McCann's skinks are diurnal and abundant in a wide variety of habitats—particularly dry, rocky ones. They are avid sun-baskers.

These skinks are more tolerant of harsh conditions and highly modified habitats than all of our other native lizards. They can live in town/rural gardens and parks, on farms, and along road edges, cycleways, and walkways, which commonly brings them into contact with people.

McCann's skinks will forage amongst long introduced grasses, tussock, and amongst small native shrubs (e.g. *Coprosma propinqua* and *Melicytus alpinus*) or dense vines (e.g. *Muehlenbeckia complexa*). They feed on a range of invertebrates, including insects and spiders, and will opportunistically consume native fruits from certain shrubs (e.g. the porcupine shrub, *M. alpinus*).

Females can reproduce annually, with two to six young born in summer.



McCann's skink (Central Otago). Photographed by Carey Knox



McCann's skink (Central Otago). Photographed by Carey Knox

Conservation

While this species is classified as “Not Threatened”, like all other lizard species in Otago, populations are impacted by habitat modification (e.g. land development, intensive farming, and fires), in addition to introduced mammalian predators, such as rats, mice, hedgehogs, weasels, stoats, ferrets, feral cats, and pet cats.

Regional threat listing qualifiers:

Otago is a national stronghold for McCann's skink, with over 20% of their population found in the region (National Stronghold). The type locality for McCann's skink is in Otago, meaning the specimen used to first describe the species came from this region (Type Locality).

Identifying features

- Grey-brown colour
- Otago individuals often have checkerboard patterning
- Central back stripe breaks into fragments towards the tail



McCann's skink (Oteake Conservation Park). Photographed by Carey Knox



McCann's skink (Oteake Conservation Park). Photographed by Carey Knox

Rockhopper skink

Oligosoma eludens



Conservation status

Regional | Threatened: Vulnerable

National | At Risk: Declining

Description

Body length: up to 65 mm snout-vent length (SVL).
Intact tail longer than SVL.

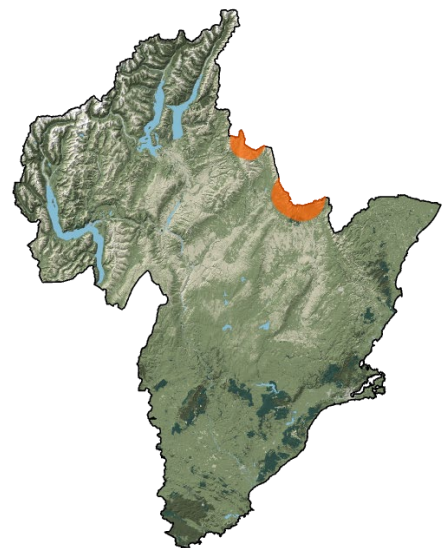
Head: the iris is pale grey to light brown
and the ear opening is small.

Upper surfaces: coloured medium to dark brown above with thin, smooth longitudinal stripes along the back and sides, and lacking any prominent spots, flecks, or mottling. A wide stripe is present along the centre of the back in adults but is often dull or indistinct and is absent from the tail.

Lower surfaces: throat pale grey or pale yellow with sparse dark specks, merging gradually into a uniform cream, dull-grey, or bright-yellow belly. The soles of the feet are dark yellow-brown, but the underside of the toes is often black.

Distribution

The rockhopper skink is found in several mountain ranges along the North Otago/Canterbury border. It has only been recorded at high elevations between 1,100 and 1,700 m above sea level.



Ecology & natural history

This species is very active (particularly on sunny mornings or evenings) and agile, often jumping from one rock to the next. This behaviour gave rise to the common name of rockhopper skink. The mountain ranges where they live are primarily composed of greywacke rock, which forms numerous crumbling outcrops, bluffs, and boulderfields on the ridge crests and expansive, active scree slopes on the mountain sides.

Rockhopper skinks are generally found along scree-shrubland edges, or around vegetated islands amongst boulderfield, where low-stature woody shrubs, in particular *Dracophyllum*, grow amongst and over large, chunky, and stable rocks. Deep, rocky habitats are likely to provide overwintering spots and protection from weather extremes.

Conservation

The species appears widespread in at least four mountain ranges, but predation from introduced mammals is a concern. Rockhopper skinks are likely to be preyed upon by feral cats, stoats, possums, mice, and hedgehogs. Concerningly, climate change could enable higher abundances of these predators in the alpine zones of North Otago and the Mackenzie Country, to the detriment of this species.

Regional threat listing qualifiers:

Otago is a national stronghold for the rockhopper skink, with over 20% of their population found in the region (National Stronghold). The southern limit of their natural distribution is in the Otago region (Natural Range). The type locality of the Rockhopper skink is in Otago, meaning the specimen used to first describe the species came from this region (Type Locality).



Melanistic rockhopper skink. Photographed by Carey Knox

Identifying features

The rockhopper skink coexists with the Nevis skink (*Oligosoma toka*) in some locations but can be easily distinguished via differences in colour pattern, and because it has four scales in the second row of scales above the eye (supraocular scales), whereas the Nevis skink has three.

It can be difficult to distinguish rockhopper and tussock skinks (*Oligosoma chionocholescens*), but the former has a smaller ear opening, a duller and wider stripe along the centre of the back, and much lighter-coloured stripes along its sides.

Although the southern grass skink (*Oligosoma* aff. *polychroma* Clade 5) also has stripes on its sides, they generally have rough edges, while the rockhopper skink has smooth-edged stripes.



Rockhopper skink (Oteake Conservation Park). Photographed by Carey Knox



Rockhopper skink (Oteake Conservation Park). Photographed by Carey Knox

Cryptic skink

Oligosoma inconspicuum



Conservation status

Regional | At Risk: Declining

National | At Risk: Declining

Description

Body length: up to 86 mm snout-vent length (SVL), but typically <77 mm. Intact tail slightly longer than SVL.

Lower surfaces: the throat is usually pale grey and the belly is grey-brown, bronze, or bright yellow (either uniform or speckled).

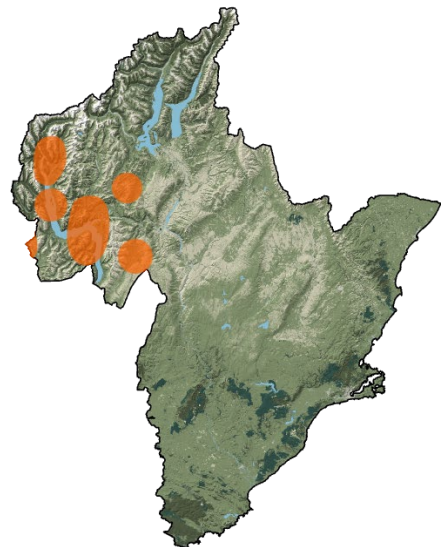
A charming skink that is variable in appearance.

Upper surfaces: can be light brown, chestnut, reddish brown, or dark brown. The back may have a dark stripe down the centre.

Side surfaces: the lateral stripes on the sides of the skink are usually notched or wavy, rather than straight.

Distribution

The cryptic skink is known from West Otago as well as Southland, including islands in Foveaux Strait. It may also occur in parts of Fiordland, but the distributional boundaries between the cryptic skink and the similar Te Wāhipounamu skink (*Oligosoma pluvialis*) are poorly understood.



Ecology & natural history

The cryptic skink is a shy but fast-moving skink that normally basks close to cover. Cryptic skinks live in a wide variety of habitats and will utilise loose rock, wood, and dense native vegetation for cover. Habitats include tussock grassland, boulderfield, scattered rock falls, and native shrublands. Woody native shrubs and vines, such as *Muehlenbeckia complexa*, provide basking habitat, cover, and food sources in the form of berries and insects.

Conservation

This species is not a current focus for conservation management as it has a wide distributional and elevation range, which is likely to make populations quite resilient. However, as with most other lizards in Otago, populations are impacted by habitat modification (e.g. land development, intensive farming, and fires) in addition to introduced mammalian predators, including rats, mice, hedgehogs, weasels, stoats, ferrets, and cats.

Regional threat listing qualifiers:

Otago is a national stronghold for the cryptic skink, with over 20% of their population found in the region (National Stronghold). The northern limit of their natural distribution is in the Otago region (Natural Range). Their type locality is Otago, meaning the specimen used to first describe the species came from this region (Type Locality).

Identifying features

The cryptic skink co-exists with the tussock skink (*Oligosoma chionocholescens*) and McCann's skink (*Oligosoma maccanni*) but is the only one of these species to have abundant light-coloured or black flecking. McCann's skink is much more grey-brown in colour, while the tussock skink usually has a proportionately larger ear and smooth-edged stripes on its sides (vs. typically rough-edged stripes on the cryptic skink).



Cryptic skink. Photographed by Samuel Purdie



Cryptic skink (Takitimu Mountains). Photographed by Carey Knox



Cryptic skink (Old Woman Range). Photographed by Carey Knox

Herbfield skink

Oligosoma murihiku

Other names: Murihiku skink, cryptic skink (formerly)



Conservation status

Regional | At Risk: Declining

National | At Risk: Declining

Description

Body length: up to 70 mm snout-vent length (SVL), with intact tail equal to or longer than SVL.

Upper surfaces: pale brown to dark brown, usually with black or cream flecks and pale brown/cream stripes. There is often a dark stripe down the middle of the back.

Side surfaces: have a dark-brown band that usually has rough edges, is often outlined with black, and is bordered by pale cream or brown stripes.

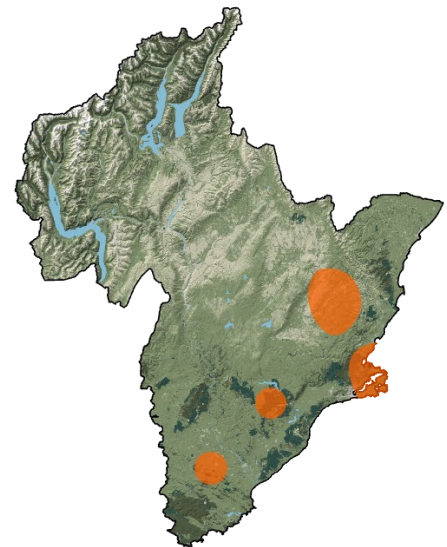
Lower surfaces: bright yellow with cream-white throat and chin (usually with black speckles).

Distribution

Herbfield skinks occur from near Macraes Flat (northeast of Ōtepoti/Dunedin) southwards to Clinton and as far West as Wairio, in Southland. They can be found around Awarua Bay (near Invercargill), on Muaūpoko/Otago Peninsula, and in Orokonui Ecosanctuary – Te Korowai o Mihiwaka (near Ōtepoti/Dunedin). The species is widespread from coastal ecosystems to high-elevation lowland ecosystems, reaching elevations of approximately 670 metres above sea level.

Feet: short toes with black and/or yellow soles.

Eye colour: green or, rarely, brown.



Ecology & natural history

Herbfield skinks are primarily active during the day. They sun-bask (often within dense shrubs) to maintain their preferred body temperatures and can frequently be seen scurrying around (including climbing shrubs) to seek food and mates. They inhabit relatively damp shrublands, wetlands, dunelands (where they occasionally live in exotic ice plants), herbfields, and rocky grasslands. At night, herbfield skinks hide underneath rocks and logs, as well as in dense vegetation, rock crevices, and occasionally trees (e.g. tī kōuka/cabbage trees).

The species mostly feeds on a range of invertebrates (including insects and spiders) and may opportunistically consume native fruits and nectar from flowers.

Females reproduce annually and typically give birth to two or more offspring in summer.

Conservation

Herbfield skinks have received limited conservation attention. However, a protected population is present in Orokonui Ecosanctuary. Their major threats include habitat modification (by land development and fires) and introduced mammalian predators, such as rats, mice, stoats, ferrets, and cats. Climate change might also pose a threat to these skinks.

Regional threat listing qualifiers: Otago is a national stronghold for the herbfield skink, with over 20% of their population found in the region (National Stronghold). The northern limit of their natural distribution is in the Otago region (Natural Range).



Herbfield skink (Otago Peninsula). Photographed by Carey Knox

Identifying features

Herbfield skinks may be mistaken for several other species of skink that occupy similar locations in Otago. The following characteristics are useful for identification: herbfield skinks can be distinguished from tussock skinks (*Oligosoma chionocholescens*) by their patterns, as herbfield skinks usually have a rough-edged band on their side surfaces and dark flecks on their upper surfaces (vs. a smooth-edged band and few or no flecks in the tussock skink). Herbfield skinks also have a proportionately smaller earhole than tussock skinks.

They can be distinguished from cryptic skinks (*Oligosoma inconspicuum*) by their toes and eye colour, since herbfield skinks usually have 18-20 folds of skin under their longest toes, whereas cryptic skinks have 20-24. Additionally, herbfield skinks usually have green eyes (vs. brown eyes in cryptic skinks).

Herbfield skinks can be distinguished from Burgan skinks (*Oligosoma burganae*) by their head scales, as herbfield skinks have four large scales in the second row of scales above each eyelid (vs. three in Burgan skinks).

Unlike McCann's skinks, which are grey-brown with a pale checkerboard pattern and little to no black speckling, Herbfield skinks are usually a rich, warm-brown colour and typically have black or cream speckles.



Herbfield skink (Otago Peninsula). Photographed by Carey Knox

Oteake skink

Oligosoma aff. inconspicuum “North Otago”



Conservation status

Regional | Threatened: Vulnerable

National | Threatened: Vulnerable

Description

Body length: up to 70 mm snout-vent length (SVL) with intact tail longer than SVL.

The Oteake skink is a rare species of lizard that is only known from a single subalpine area in Otago.

Upper surfaces: range from light brown to chestnut to dark brown. The scales along the back are often fully enclosed by a black perimeter. There may be traces of a stripe down the centre of the back or no stripes at all.

Side surfaces: the lateral stripes are usually notched.

Distribution

Oteake skinks are known from the Little Kyeburn catchment between Mt Kyeburn and Mt Buster in North Otago between 950 and 1,100 metres above sea level, where they occupy an area of around 25 hectares. Although this species was previously thought to be endemic to the Otago region, one skink has been recorded on Mount Solution in Westland that clusters in with Oteake skinks genetically. Therefore, it is possible that Oteake skinks are more widespread than previously thought.

Lower surfaces: large black spots are present along the edge of throat. The throat is grey, often with prominent black flecking. The belly is grey or light yellow, and uniform or speckled.

Feet: the soles of the feet are predominantly black.



Ecology & natural history

The Oteake skink is a fast-moving, shy skink that normally basks close to cover and can be difficult to approach. It lives amongst bluffs, boulderfields, and scattered rock falls with a thick covering of woody vegetation (especially snow tōtara and Coprosma). Boulderfield is likely to provide overwintering habitat and protection from weather extremes, while woody shrubs supply basking habitat, cover, and food sources in the form of berries and insects. Oteake skinks are also known to occupy tussock grassland with abundant *Dracophyllum* shrubs.

There is potential for the species to be found around damp, generally south-facing boulderfields or scree slopes with a dense covering of snow tōtara and other woody shrubs or vines in the subalpine or low alpine zone. However, these habitats are sparse in North Otago; thus, this species is likely to be rare and restricted in distribution. It may be present in the poorly surveyed Kakanui Mountains.

Conservation

The Oteake skink is part of a group of related but taxonomically unresolved skinks, informally referred to as the 'cryptic skink species complex'. A population with some genetic affinity to the Oteake skink has recently been found at Mount Solution in South Westland and requires further study. As with all threatened skinks in New Zealand, predation from introduced mammals is a concern for this species. Given the taxon is only known from one location, it is inherently vulnerable to anything that may happen in that catchment. For example, fire would be devastating for the Oteake skink, as the species appears quite reliant on woody shrubs.

Regional threat listing qualifiers:

Otago is a national stronghold for the Oteake skink, with over 20% of their population found in the region (National Stronghold).

Identifying features

The Oteake skink co-exists with the tussock skink (*Oligosoma chionochloescens*) and McCann's skink (*Oligosoma maccanni*), but the Oteake skink is the only one of these species to have abundant black flecking, and the tussock skink has an obvious stripe along the middle of its back.



Oteake skink (Oteake Conservation Park). Photographed by Carey Knox



Oteake skink (Oteake Conservation Park). Photographed by Carey Knox



Oteake skink (Oteake Conservation Park). Photographed by Carey Knox

Te Wāhipounamu skink

Oligosoma pluvialis

Other names: Big Bay skink, mahogany skink, Humboldt skink, pallid skink, cryptic skink (formerly)



Otago
Regional
Council



Conservation status

Regional | Threatened: Vulnerable

National | Not assessed

Description

Body length: up to 74 mm snout-vent length (SVL), with intact tail equal to or longer than SVL

This sleek species of skink is highly variable and comprises several distinct forms that are yet to be fully understood.

Upper surfaces: pale brown to dark mahogany (occasionally black), often with dark flecks or spots and pale-brown stripes (and sometimes with a dark stripe down the middle of its back). Some populations of Te Wāhipounamu skinks have prominent ridges running down their tail, which may be an adaptation to high-rainfall environments.

Side surfaces: have a dark-brown band that usually has rough edges and is bordered by pale cream or brown stripes.

Lower surfaces: cream-grey, copper, yellow-brown, or bright yellow with white, grey, or black throat and chin (often with speckles).

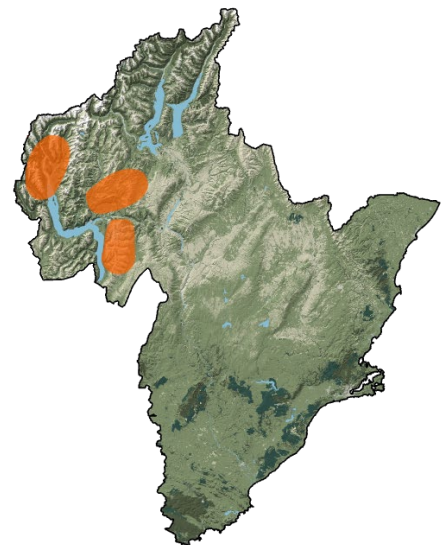
Feet: relatively short toes with pale-brown to black soles.

Eye colour: pale green or brown

Distribution

Te Wāhipounamu skinks occur from northern Southland (the Mataura Range, Mid Dome, and East Dome) to the mountains north and east of Lake Whakatipu in Otago (the Hector Mountains and Crown Range), and westwards to the West Coast, where they inhabit the Cascade Plateau. In the Otago region, Te Wāhipounamu skinks are only known from Mount Cardrona, Tapuae-o-Uenuku/Hector Mountains, and Coronet Peak.

They are primarily restricted to mountainous areas over 500 m above sea level and alpine ecosystems, reaching elevations of approximately 1,800 m above sea level. However, Te Wāhipounamu skinks have also been found living near sea level on the West Coast at Big Bay, Barn Bay, and on the Barn Islands.



Ecology & natural history

Te Wāhipounamu skinks are primarily active during the day. They sun-bask to maintain their preferred body temperature and can be seen scurrying around to seek food and mates. They inhabit boulder beaches, rocky shrubland and herbfield, vegetation ledges on cliffs, scree, and other rocky slopes. Rocks, logs, dense vegetation, crevices and scree provide shelter at night.

Te Wāhipounamu skinks mostly feed on a range of invertebrates, including insects and spiders, and may opportunistically consume native fruits and nectar from flowers. They are excellent climbers that have been found hundreds of metres up Fiordland cliffs and have also been observed basking and foraging in the tops of flowering mānuka shrubs.

Female Te Wāhipounamu skinks may reproduce annually and give birth to one or more offspring in summer.

Conservation

There are several distinct forms of Te Wāhipounamu skink, which may be discrete species. Some mahogany-form Te Wāhipounamu skinks were recently translocated to Secretary Island, Fiordland, to establish a safeguard population and to test whether the island might be a suitable location for endangered Sinbad skinks (*Oligosoma pikitanga*). Te Wāhipounamu skinks are only known from a few mountain ranges in Otago, and surveys are required to understand their regional distribution better. Their major threats include climate change and introduced mammalian predators, such as rats, mice, stoats, ferrets, and cats.

Regional threat listing qualifiers:

Otago is a national stronghold for Te Wāhipounamu skinks, with over 20% of their population found in the region (National Stronghold).

Identifying features

Te Wāhipounamu skinks may be mistaken for several other species of skink that occupy similar locations in Otago. The following characteristics are useful for identification:

Te Wāhipounamu skinks can be distinguished from cryptic skinks (*Oligosoma inconspicuum*) by their patterns and colouration, as Te Wāhipounamu skinks are typically dull brown in the Otago region (vs. rich, glossy brown or brown-red in cryptic skinks) and usually have more extensive black spots and flecks than cryptic skinks.

Te Wāhipounamu skinks are also usually found at higher elevations than cryptic skinks, but these two species do overlap in some locations. Te Wāhipounamu skinks can be distinguished from Eyres skinks (*Oligosoma repens*) and Nevis skinks (*Oligosoma toka*) by their head scales because Te Wāhipounamu skinks have four large scales in the second row of scales above each eyelid (whereas Eyres and Nevis skinks usually have three).

Te Wāhipounamu skinks can be distinguished from McCann's skinks (*Oligosoma maccanni*) by their colouration and markings, as Te Wāhipounamu skinks usually have a yellow, brown, or cream belly in the Otago region (vs. white or pale grey in McCann's skinks) and prominent black markings (vs. few or no black markings in McCann's skinks).

Te Wāhipounamu skinks can be distinguished from tussock skinks (*Oligosoma chionocholescens*) by their markings, as Te Wāhipounamu skinks usually have rough-edged stripes and flecks (vs. smooth stripes and few or no flecks on the tussock skink).



Te Wāhipounamu skink, pallid form (Queenstown, Otago). Photographed by Carey Knox

Burgan skink

Oligosoma burganae



Conservation status

Regional | Threatened: Vulnerable

National | Threatened: Endangered

Description

Body length: up to 70 mm snout-vent length (SVL), with intact tail equal to or longer than SVL.

Upper surfaces: pale-brown to dark-brown in colour, usually with black, cream, or yellow flecks and cream-yellow or pale-brown stripes. Burgan skinks can also have a dark stripe down the middle of their back.

Side surfaces: have a dark-brown band that usually has rough edges and is bordered by pale-cream or brown stripes.

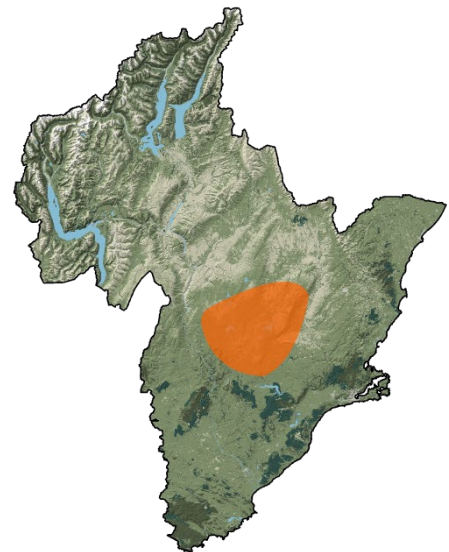
Distribution

Burgan skinks are known from mountainous areas near Middlemarch in inland Otago. They can be found in the Rock and Pillar Range, Lammermoor Range, and near Lake Onslow. Populations of Burgan skinks appear to be restricted to mountainous areas over 800 metres above sea level, reaching elevations of approximately 1,400 metres above sea level.

Lower surfaces: grey or dull-yellow in colour, with grey throat and chin, usually with black speckles.

Eye colour: dark brown

Feet: short toes with dark-brown or black soles.



Ecology & natural history

Burgan skinks inhabit herbfields, woody/shrubby tussocklands (particularly those with *Dracophyllum* shrubs and dense, small-leaved mingimingi/*Coprosma* shrubs) and cushion plant herbfields, especially those with mountain daisies.

They are primarily active during the day, sun-basking during suitable weather (often within or between dense shrubs to maintain preferred body temperatures). They can often be seen scurrying around or climbing shrubs to seek food and mates. At night, they hide in dense vegetation or below the surface, possibly in burrows, which may be excavated by themselves and/or insects.

Burgan skinks mostly feed on small invertebrates, including insects and spiders, and may opportunistically consume native fruits and nectar from flowers. Like the Eyres skink (*Oligosoma repens*) and Nevis skink (*Oligosoma toka*), this species has been known to curl its tail above its body as a possible defence mechanism.

Female Burgan skinks typically reproduce annually, giving birth to three to six offspring in summer.

Conservation

Burgan skinks were initially only known from a very small number of locations. Several new populations have recently been discovered, however, with the species being more widespread than previously thought. The major threats to the Burgan skink are habitat modification (including by land development, fires, and wilding conifer trees) and introduced mammalian predators, such as rats, mice, stoats, ferrets, and cats.

This species appears particularly vulnerable to habitat modification, being reliant on woody shrubs within tussock grasslands to survive. Consequently, fires are a significant threat to Burgan skink populations, both as a direct cause of death and via the destruction of woody shrubs in tussock grasslands. Human-induced climate change might also pose a threat to these skinks, particularly by increasing the intensity and frequency of fires.

Regional threat listing qualifiers:

The Burgan skink is an endemic species to Otago, meaning it is only found in this region (Regional Endemic). The type locality for the Burgan skink is in Otago, meaning the specimens used to first describe the species came from this region (Type Locality).

Identifying features

Burgan skinks may be mistaken for two other species of skink that occupy similar locations in Otago. The following characteristics are useful for distinguishing them.

Burgan skinks can be distinguished from tussock skinks (*Oligosoma chionochloescens*) and McCann's skinks (*Oligosoma maccanni*) by their patterns and head scales, as Burgan skinks are usually more heavily flecked than these species and they have three large scales in the second row of scales above each eyelid vs. usually four scales in tussock skinks and McCann's skinks.



Burgan skink (Rock and Pillar Range). Photographed by Carey Knox



Burgan skink (Rock and Pillar Range). Photographed by Carey Knox

Nevis skink

Oligosoma toka



Conservation status

Regional | At Risk: Declining

National | At Risk: Declining

Description

Body length: up to 71 mm snout-vent length (SVL), with intact tail longer than SVL.

The Nevis skink is a relatively small, rock-dwelling species from mountainous parts of West Otago.

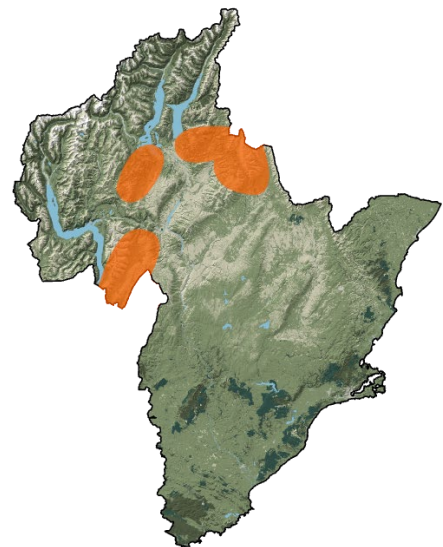
Upper surfaces: black to varying shades of rich-brown in colour, often with light or dark flecks either side of a central stripe along the back.

Side surfaces: thick, pale-cream or yellowish stripes with smooth edges.

Lower surfaces: the belly is typically a mustard-yellow colour.

Distribution

Nevis skinks are found over a wide elevational range, from 500 metres up to 1,920 metres above sea level—the highest elevation that skinks have been recorded at in Otago. Although mainly located in West Otago, the Nevis skink's distribution does extend into southern Mackenzie Country, Canterbury. In the early 2000s, this species was thought to exist exclusively in the Nevis Valley, including the adjacent Hector Mountains and Old Woman Range. However, in recent years it has been discovered in the Crown Range, Saint Bathans Range, Wether Range, Dunstan Range, and Lindis Pass area.



Ecology & natural history

Nevis skinks are diurnal sun-baskers, making them quite easy to observe in mild, sunny weather. They can be found in a wide variety of habitats in tussock grassland, often with rock cover, and will forage amongst dense tussocks, rock piles, and native shrubs such as *Coprosma* and *Dracophyllum* for small invertebrate prey and berries.

Their populations can reach high numbers in suitable environments, and they are known to inhabit river terraces, old gold tailings, matagouri shrublands, fields of spear grass (*Aciphylla* spp.), scree and rock piles, and low-growing *Dracophyllum* shrubland habitat, with or without rocky boulderfield.

Conservation

The Nevis skink was once thought to be a very rare species, restricted to the Nevis Valley, but dedicated lizard surveys, and opportunistic sightings by the public, have vastly improved our understanding of their distribution. This skink species is now known from many new locations and does not appear to be immediately threatened with extinction. Its main threats are habitat modification (including by land development, intensive farming, and fires) and introduced mammalian predators, such as rats, mice, hedgehogs, weasels, stoats, ferrets, and cats.

Regional threat listing qualifiers:

Otago is a national stronghold for Nevis skinks, with over 20% of their population found in the region (National Stronghold). The southern limit of their natural distribution is in the Otago region (Natural Range). The type locality of the Nevis skink is in Otago, meaning the specimen used to first describe the species came from this region (Type Locality).



Nevis skink (Nevis Valley). Photographed by Carey Knox

Identifying features

Distinguished from all other skinks that it overlaps in distribution with based on consistently having three large scales in the second row of scales above each eyelid vs. four large scales in all other species, except for some tussock skinks (*Oligosoma chionocholescens*) and southern grass skinks (*O. aff. polychroma*; Clade 5). McCann's skink often co-exists with the Nevis skink, but is more grey-brown in colour, as opposed to a rich or warmer brown colour in Nevis skink. Moreover, McCann's skinks in Otago typically have checkerboard-like patterning unlike the Nevis skink. The Nevis skink has a bright, mustard-yellow belly colour as opposed to a cream or dull-yellow belly in both the tussock skink and southern grass skink and also has a smaller ear size than both of those species.



Nevis skink (Nevis Valley). Photographed by Carey Knox



Nevis skink (Nevis Valley). Photographed by Carey Knox

Eyres skink

Oligosoma repens



Conservation status

Regional | At Risk: Declining

National | At Risk: Declining

Description

Body length: up to 62 mm snout-vent length (SVL), with intact tail longer than SVL

A vibrant species of skink that is found in mountainous areas in southwestern Otago and Southland.

Upper surfaces: brown or yellow-brown in colour, often with yellow-cream stripes and a dark stripe down the middle of the back.

Side surfaces: have a dark-brown coloured band, usually with smooth edges and bordered by pale, cream-yellow stripes.

Distribution

Eyres skinks occur in the mountains northwest of Lake Whakatipu (e.g. the Humboldt Mountains), southwest of Lake Whakatipu, (e.g. the Eyre Mountains) and in southeastern Fiordland, Southland. The Eyres skink can also be sighted in the alpine zone on one of Aotearoa New Zealand's Great Walks, the Routeburn Track.

They are primarily restricted to mountainous areas greater than 600 metres above sea level, reaching elevations of up to approximately 1,600 metres above sea level. However, Eyres skinks have also been found at mid-elevations of approximately 400 metres above sea level, in Southland's Takitimu Mountains.

Lower surfaces: lemon-yellow or yellow-brown colour, with a grey throat and chin.

Feet: short toes with dark-brown or black soles.

Eye colour: pale brown



Ecology & natural history

Eyres skinks inhabit rocky shrubland, grassland, and herbfield, scree, and other rocky slopes. They are primarily active during the day and sun-bask during suitable weather to maintain their preferred body temperatures, often scurrying around to seek food and mates. At night, they hide underneath rocks and logs, in dense vegetation, rock crevices and scree, and on other rocky slopes. Female Eyres skinks may reproduce annually and are thought to give birth to three or more offspring in summer, like some other closely related skink species. Eyres skinks mostly feed on small invertebrates, including insects and spiders, and may opportunistically consume native fruits and nectar from flowers. Like the Burgan skink (*Oligosoma burganae*) and Nevis skink (*Oligosoma toka*), this species is known to curl its tail above its body as a possible defence mechanism.

Conservation

Scientists are researching conservation strategies that may help alpine lizards in New Zealand, like the Eyres skink, but more work is required to understand how their populations respond to threats such as exotic mammalian predators. Their major threats are habitat modification, including land development and fire, and introduced mammalian predators, such as rats, mice, stoats, ferrets, and cats. Human-induced climate change might also pose a threat to these skinks.

Regional threat listing qualifiers:

The northern limit of their natural distribution is in the Otago region (Natural Range). Their type locality is near the Southland–Otago border, meaning the specimen used to first describe the species is from an Otago population (Type Locality).



Eyres skink (West Otago). Photographed by Carey Knox

Identifying features

Eyres skinks may be mistaken for several other species of skink that occupy similar locations in Otago. The following characteristics are useful for distinguishing them:

Eyres skinks can be distinguished from McCann's skinks (*Oligosoma maccanni*) by their colouration and head scales, as Eyres skinks have a warm-brown upper surface vs. grey-brown in McCann's skinks. They also have a lemon-yellow or grey-brown belly and three large scales in the second row of scales above each eyelid, whereas McCann's skinks have a pale-grey or white belly and usually have four of these scales.

Eyres skinks can be distinguished from tussock skinks (*Oligosoma chionocholes*) by their colouration and head scales, as Eyres skinks usually have a lemon-yellow belly vs. yellow-brown or grey in tussock skinks, and three large scales in the second row of scales above each eyelid vs. usually four in tussock skinks.

Eyres skinks can be distinguished from cryptic skinks (*Oligosoma inconspicuum*) by their patterns and head scales, as Eyres skinks usually have smooth stripes on their upper/side surfaces vs. rough-edged stripes in cryptic skinks, and three large scales in the second row of scales above each eyelid vs. usually four in cryptic skinks.



Eyres skink (West Otago). Photographed by Carey Knox

Grand skink

Oligosoma grande



Conservation status

Regional | Threatened: Endangered

National | Threatened: Endangered

Description

Body length: up to 115 mm snout-vent length (SVL), with intact tail substantially longer than SVL.

This large, impressive, and highly athletic skink is found only in Otago. It is one of the region's most iconic reptile species, growing to a total length of about 230 mm.

Upper surfaces: deep-black colour, with vibrant gold, yellow, yellow-green, or cream flecks and streaks, sometimes forming stripes.

Side surfaces: resemble the upper surfaces.

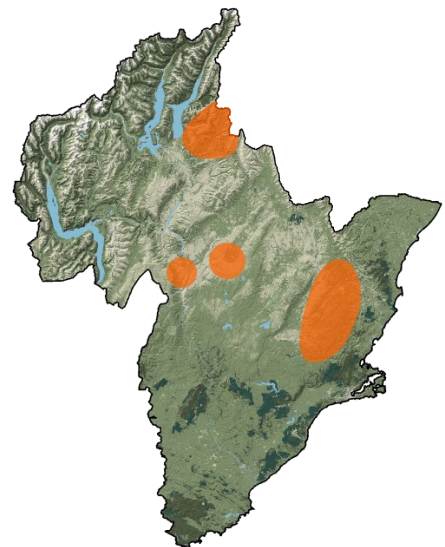
Distribution

Grand skink populations are currently patchy in distribution but occur from near Middlemarch and Macraes Flat in the east to near Lindis Pass and Lake Hāwea in the west (they may once have ranged as far west as Queenstown), inhabiting hill country and mountainous areas between 200 and 1000 metres above sea level. The eastern and western populations have been separated for several million years and are slightly different in appearance.

Lower surfaces: cream or grey in colour, sometimes with speckles.

Feet: very long toes with black soles.

Eye colour: cream or brown



Ecology & natural history

Grand skinks inhabit schist rock outcrops in rocky shrubland or tussockland and are primarily active during the day. They sun-bask during suitable weather to maintain their preferred body temperatures and can often be seen moving across rock outcrops to seek food and mates. At night, they hide in rock crevices, dense vegetation, or underneath rocks.

Female grand skinks may reproduce annually and typically give birth to two to four offspring in summer. Grand skinks mostly feed on small invertebrates, including insects and spiders, and are known to seize prey such as flies, bees and cicadas out of the air. They also consume native fruits, particularly from the pātōtara/dwarf mingimingi and the porcupine shrub (*Melicytus alpinus*), as well as nectar from flowers.

Conservation

Many grand skink populations are threatened with extinction, especially those in the west of the region, with the species having had extensive captive- and wild-management. The major threats to grand skinks are habitat modification, including by land development and fire, and introduced mammalian predators, such as rats, mice, stoats, ferrets, and cats. Human-induced climate change may also be an emerging threat to the species.

Grand skinks are especially vulnerable to introduced mammalian predators, mainly persisting in areas with complex habitat that enables skinks to escape these predators, or in areas under predator control or where these predators have been eliminated.

Translocations of western grand skinks have reintroduced the species to Mokomoko Dryland Sanctuary, near Alexandra, to re-establish a population in this area. Other fenced sanctuaries have been built to protect remnant populations of eastern grand skinks near Macraes. There has also been extensive landscape-scale predator control near Macraes to protect grand and Otago skinks. Although some populations of grand skinks can be found outside of these protected areas, they have declined throughout most of their indigenous range, with few healthy populations remaining.

Regional threat listing qualifiers:

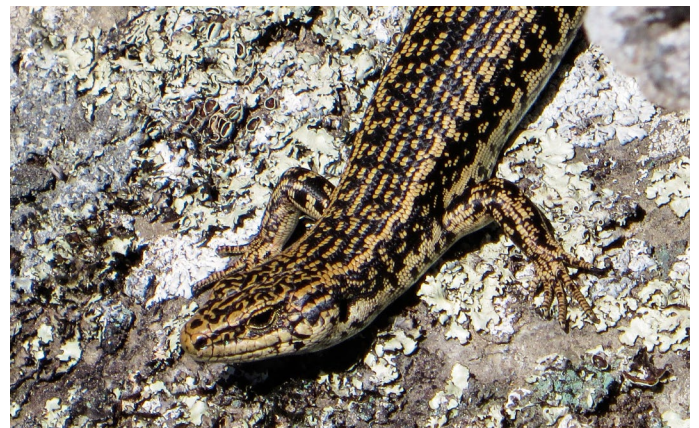
The grand skink is endemic to Otago, meaning it is only found in this region (Regional Endemic). The type locality of the grand skink is in Otago, meaning the specimens used to first describe the species came from this region (Type Locality).

Identifying features

Grand skinks are only likely to be mistaken for one other species of skink, the Otago skink (*Oligosoma ottagense*), which occupies similar locations in Otago. Grand skinks can be distinguished from Otago skinks by their body size and patterns, as adult grand skinks are smaller than Otago skinks (typically ≤ 105 mm SVL vs. typically ≥ 105 mm SVL, respectively), and grand skinks have flecks and streaks on their upper and side surfaces vs. much larger blotches or bands in Otago skinks. Interestingly, grand skinks are nestled in the cryptic skink clade/group and are more closely related to cryptic skinks (*Oligosoma inconspicuum*) than they are to Otago skinks.



Grand skink (West Otago). Photographed by Carey Knox



Grand skink (East Otago). Photographed by Carey Knox

Otago skink

Oligosoma otagense

Other names: Giant Otago skink



Conservation status

Regional | Threatened: Endangered

National | Threatened: Endangered

Description

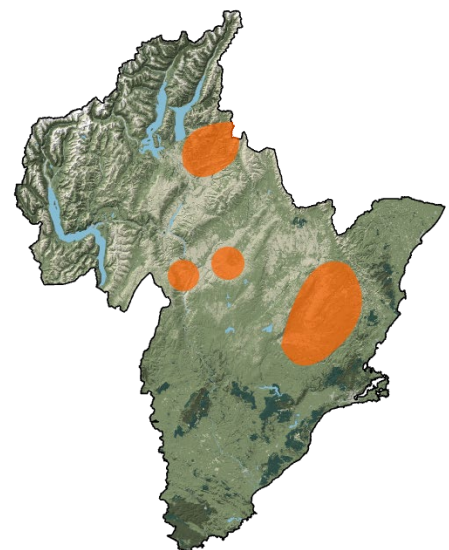
Body length: up to 142 mm snout-vent length (SVL), but usually <130 mm SVL. Intact tail longer than SVL.

A rare, striking species, the Otago skink is one of New Zealand's largest reptiles and the largest skink in the South Island, occasionally reaching up to 30 cm in total length.

The upper surfaces and sides range from vivid to dull black with whitish, cream, pale-grey, dull-greenish, light-yellow, or light-gold markings. These markings can be bold, contrasting against the black background, or more streaky, flecked, or striated, mixing in with the black background. The lateral surfaces are typically light grey or cream and quite uniform but may contain some darker blotches or speckles.

Distribution

There are likely to be only a few thousand mature Otago skinks remaining in the wild. Their elevation range is currently about 300–1,000 metres above sea level, and they are distributed between two main areas: one in the east (around Macraes Flat, Nenthorn, Middlemarch, Pukerangi, and Sutton) and the other in northwest Otago (between Lindis Pass and Lake Hāwea). The eastern population is larger than the west, where <1,000 individuals are likely to remain.



Ecology & natural history

Otago skinks are diurnal, highly active in mild to warm conditions, and rock-dwelling, although they will venture into tussocks and shrubland surrounding rocky habitats. They are associated with deeply fractured schist rock outcrops, typically in or close to gullies, while the similarly endangered grand skink (which shares much the same geographical range) is more commonly found on ridge tops. However, some overlap in habitat use occurs.

Conservation

Otago skinks were once found over much of Otago, from Lake Hāwea in the west to near Waikouaiti in the east; however, today they are thought to inhabit only a small fraction of their former range. Localised extinctions of Otago skinks have been recorded across much of their current range since the 1970s. Their decline has been mainly attributed to predation by introduced mammalian predators, but land use changes and farming practices are also likely to have played a significant role.

Otago skinks are likely to be preyed upon by feral cats, stoats, ferrets, weasels, possums, mice, and hedgehogs. To combat decline and safeguard the species, the Department of Conservation – Te Papa Atawhai is managing it with multi-species mammalian predator control over a 4,000-hectare area at Macraes Flat, as well as securing a population within a 16-hectare mammal-proof fenced area. For the western population of Otago skinks, a population has been reintroduced to the Mokomoko Dryland Sanctuary, a 14-hectare area in hill country near Alexandra, protected by a mammal-proof fence. There is also a small, enclosed population of eastern Otago skinks at Orokonui Ecosanctuary – Te Korowai o Mihiwaka, near Ōtepoti/Dunedin, which provides, which provides an excellent viewing experience for the public.

Regional threat listing qualifiers:

The Otago skink is endemic to the Otago region, meaning it is only found there (Regional Endemic). Otago is a national stronghold for Otago skinks, with over 20% of their population found in the region (National Stronghold). Their type locality is Otago, meaning the specimen used to first describe the species came from this region (Type Locality).

Identifying features

While it resembles the grand skink (*Oligosoma grande*), the Otago skink is larger and more robust. Additionally, Otago skinks typically have much larger markings on the sides and back vs. much more numerous smaller flecks or striations in the grand skink.

The Otago skink also resembles the scree skink (*Oligosoma waimatense*) but is darker in overall appearance, having substantially blacker colouration. It also has larger markings than the scree skink. It is, however, unlikely that these two species co-occur anywhere in Otago, as their ranges are not known to overlap (scree skinks are restricted to scree slopes along the North Otago border).

The Otago skink is unlikely to be confused with any other skink species based on their unique combination of size, colouration, and markings.



Otago skink (West Otago). Photographed by Carey Knox

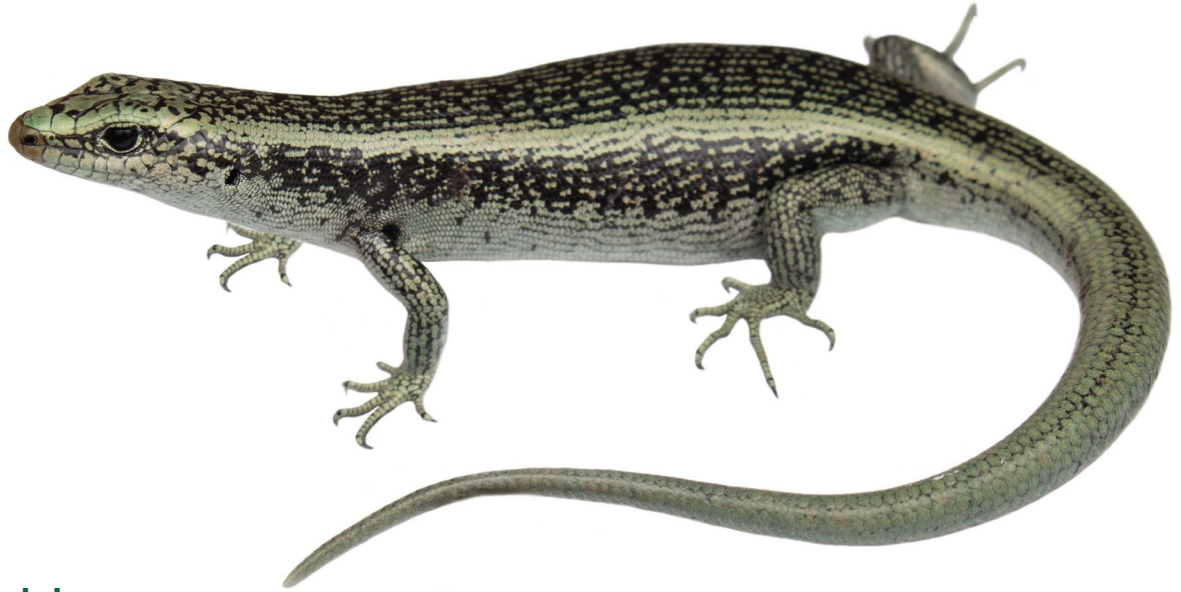


Otago skink (East Otago). Photographed by Carey Knox

Scree skink

Oligosoma waimatense

Other names: Otago scree skink



Conservation status

Regional | Threatened: Vulnerable

National | Threatened: Vulnerable

Description

Body length: up to 116 mm snout-vent length (SVL), with intact tail longer than SVL

This highly active, large-bodied species of skink is found in Otago and Canterbury.

Upper surfaces: grey, black, or cream-yellow in colour, but occasionally pale-green colouration, with cream, black, or brown flecks, streaks, or bands, which sometimes form stripes.

Distribution

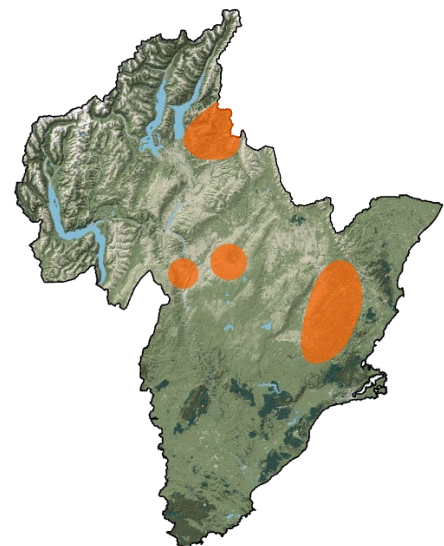
Scree skinks occur from southern to mid-Canterbury (Lake Coleridge and Lake Heron), down to North Otago (Saint Bathans Range and Ida Range). Their populations are primarily restricted to mountainous ecosystems, from >500 metres above sea level, to alpine ecosystems, reaching elevations of approximately 1,700 metres above sea level. However, they can occur at lower elevations (from >300 metres above sea level in some areas) and would have once been more common in lowland ecosystems than they are now.

Side surfaces: resemble upper surfaces.

Lower surfaces: cream or pale-grey in colour, sometimes with an orange belly.

Feet: long toes with brown, grey, or black soles

Eye colour: black



Ecology & natural history

Scree skinks inhabit creviced rock outcrops, rocky river terraces/lake shores, old stream beds, boulderfields, and scree, seeking shelter at night under rocks, in dense vegetation and rock crevices, among scree and boulderfield, and on other rocky slopes. Primarily active during the day, they sun-bask during suitable weather to maintain their preferred body temperatures.

Scree skinks can often be seen running across rocky slopes to seek food and mates. They mostly feed on invertebrates, including insects and spiders, and may opportunistically consume native fruits, nectar from flowers, and other small lizards.

Female scree skinks may reproduce every one or two years and may produce two to six offspring in summer. Genetic studies have indicated that scree skinks in the Otago region once hybridised with Otago skinks (*Oligosoma ottagense*).

Conservation

In Otago, the scree skink has received limited conservation attention. Their major threats are habitat modification (including by land development, floods, and fires) and introduced mammalian predators, such as rats, mice, stoats, ferrets, and cats. Human-induced climate change may also pose a threat to this species.

Regional threat listing qualifiers:

Otago is a national stronghold for the scree skink, with over 20% of their population found in the region (National Stronghold). The southern limit of their natural distribution is in the Otago region (Natural Range).



Scree skink (Oteake Conservation Park). Photographed by Carey Knox

Identifying features

Scree skinks are only likely to be mistaken for one other species of skink that occupies similar locations in Otago. The following characteristics are useful for distinguishing them:

Scree skinks can be distinguished from alpine rock skinks (*Oligosoma* aff. *waimatense* “alpine rock”) by their head shape and colour, as scree skinks have proportionately blunter snouts than alpine rock skinks and they usually have grey or cream markings vs. green or gold markings in alpine rock skinks, with less extensive black colouration than alpine rock skinks. In the scree skink (*Oligosoma waimatense*), markings form obvious bands, whereas alpine rock skink markings uniformly cover the entirety of the back and sides of the skink. Scree skinks also have a higher number of scales encircling the middle of their body (50–68) than alpine rock skinks (usually 44) and more folds of skin under their longest toe: 30–34 in the scree skink vs. 24–25 in the alpine rock skink. Scree skinks are also larger and more robust than alpine rock skinks.



Scree skink (Oteake Conservation Park). Photographed by Carey Knox



Scree skink (Oteake Conservation Park). Photographed by Carey Knox

Alpine rock skink

Oligosoma aff. waimatense “alpine rock”



Conservation status

Regional | Threatened: Vulnerable

National | Threatened: Vulnerable

Description

Body length: up to 90 mm snout-vent length (SVL).
Intact tail significantly longer than SVL.

Upper surfaces: base colouration is black, adorned with numerous small yellow or gold spots or short parallel lines. In occasional individuals, these markings are light green or blueish. On the tail, the markings come together to form numerous fine longitudinal stripes.

Lower surfaces: an even covering of grey, light-yellow, cream, or pale-blue scales, thinly bordered in black.

Eye colour: black

Soles of the feet: black

Distribution

The alpine rock skink was only discovered in 2018, but several additional populations have been found during subsequent field surveys. Initially identified in the Hawkdun Range of Oteake Conservation Park in North Otago, it was soon also found in the adjoining Ida Range. More recently, in 2023, alpine rock skinks were discovered in the Two Thumb Range near Tekapo.



Ecology & natural history

The strongly rock-dwelling alpine rock skink occupies scree and boulderfield between elevations of 1,100 and 1,700 metres above sea level. It is primarily associated with rock and is often found many tens of metres away from any obvious vegetation.

Alpine rock skinks are avid sun-baskers and appear to be highly active and agile—they are seemingly capable of crossing large tracts of scree and boulderfield in a single day.

They are likely to prey on a range of invertebrates that occupy their habitats, including grasshoppers, flies, spiders, and moths. On a few occasions, groups of alpine rock skinks have been observed congregating around large clusters of flies, which they may prey upon. Recent research suggests that drones could be an effective surveying tool for alpine rock skinks.

Conservation

Scientists are researching conservation strategies that may help alpine lizards in New Zealand, but more work is required to understand how their populations respond to threats such as exotic mammalian predators. The species appears to have an extremely patchy distribution across seemingly appropriate habitat, which may suggest that they are in decline and have been extirpated from some areas. Alpine rock skinks are likely to be preyed upon by feral cats, stoats, possums, mice, and hedgehogs. Concerningly, climate change could enable higher abundances of these predators in the alpine zone. Recent research suggests that drones could be an effective surveying tool for alpine rock skinks.



Alpine rock skink (Hawkdun Range). Photographed by Samuel Purdie

Regional threat listing qualifiers: Otago is a national stronghold for the alpine rock skink, with over 20% of their population found in the region (National Stronghold). The southern limit of their natural distribution is in the Otago region (Natural Range).

Identifying features

Alpine rock skinks are only likely to be mistaken for the scree skink (*Oligosoma waimatense*), which occupies similar locations in Otago. Alpine rock skinks can be distinguished from scree skinks by their narrower head shape, smaller overall size, slenderer profile, and darker appearance. Although both species have light-coloured markings, the alpine rock skink's do not form any obvious bands and almost uniformly cover the entirety of its back and sides. On the lower sides of the alpine rock skink, the spots or short, parallel lines begin to come together, and the amount of visible black progressively lessens towards the belly.



Alpine rock skink (Hawkdun Range). Photographed by Carey Knox



Alpine rock skink (Hawkdun Range). Photographed by Carey Knox

Otago green skink

Oligosoma aff. chloronoton “eastern Otago”

Other names: green skink (formerly), green-backed skink



Conservation status

Regional | At Risk: Declining

National | At Risk: Declining

Description

Body length: up to 110 mm snout-vent length (SVL), with intact tail longer than SVL.

A large, strikingly patterned skink from eastern Otago.

Upper surfaces: Otago green skinks are typically green or brown on the back with prominent black or black-ringed scales.

Side surfaces: Darker brown or black on the sides and covered in numerous lighter-coloured spots or flecks.

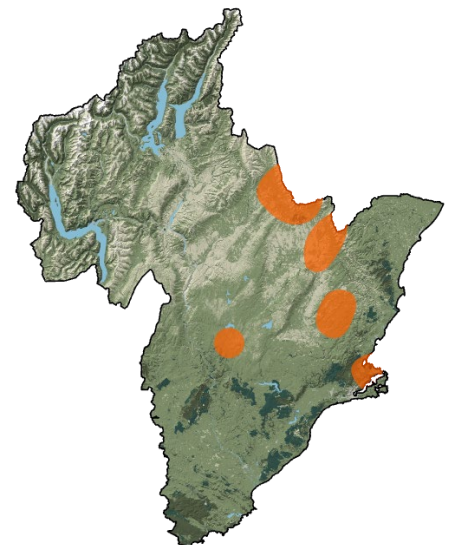
Lower surfaces: Light grey in colour. The belly is uniform, but the throat usually has a few dark flecks.

Eye colour: Dark brown (but may appear to be black).

Distribution

The Otago green skink has a very patchy distribution from coastal Otago through Central Otago and southwestwards across to the Old Man Range-Garvie Mountains system, Matakura Range, and Mid Dome. In North Otago and South Canterbury, it is found in the Kakanui Mountains, Saint Marys Range, Ida Range, Hawkdun Range, and Home Hills.

Otago green skinks appear to have declined substantially in the lowlands (e.g. they can no longer be found on Otago Peninsula), but higher-altitude populations (above 900 metres above sea level) appear to be reasonably abundant. The species is known to range up to at least 1,720 metres above sea level.



Ecology & natural history

Otago green skinks are diurnal and avid sun-baskers but can be hard to spot and retreat quickly into cover when approached. They are usually found in damp habitats, typically with woody or rocky cover in the form of logs, rock piles, or loose slabs (e.g. stream, river, or lake edges, gullies, shrublands, and tussocklands). At high altitudes, such as in the Hawkdun and Ida ranges, they occupy heavily vegetated scree edges and islands amongst scree and boulderfield, particularly between 1,100–1,700 metres above sea level.

Otago green skinks will forage amongst dense tussocks and native shrubs such as *Coprosma* and *Dracophyllum* for large invertebrate prey and berries. Females can reproduce annually, with two to four young born in summer.

Conservation

While Otago green skinks are not presently classified as a threatened species, they have declined substantially in lowland habitats and could become a threatened species if their populations are not well managed over the next few decades. As with most other lizards in Otago, populations are impacted by habitat modification (e.g. land development, intensive farming, and fires) in addition to introduced mammalian predators, such as rats, mice, hedgehogs, weasels, stoats, ferrets, and cats. Otago green skinks require densely vegetated ground cover, suitable retreats, and dampness. Thus, they do not appear to survive well on farmland or outside of conservation areas. A translocated population has established at the Orokonui Ecosanctuary – Te Korowai o Mihiwaka (near Ōtepoti/Dunedin) which has a mammal-exclusion fence.



Otago green skink (Orokonui Ecosanctuary). Photographed by Carey Knox

Regional threat listing qualifiers: Otago is a national stronghold for the Otago green skink, with over 20% of their population found in the region (National Stronghold). The northern limit of their natural distribution is in the Otago region (Natural Range).

Identifying features

Otago green skinks are unlikely to be confused with other skinks in Otago, aside from the similar Southland green skink (*Oligosoma chloronoton*) and Lakes skink (*Oligosoma aff. chloronoton* “West Otago”). The following characteristics are useful for distinguishing between these three species; however, expert assistance may be required in some cases.

Otago green skinks can be distinguished from Lakes skinks based on their head shape (Lakes skinks typically have a longer snout) and colouration (Otago green skinks are often bright green, whereas Lakes skinks are usually brown, brownish-green, or coppery brown). The Southland green skink (*Oligosoma chloronoton*) is more robust and generally has a shorter snout.



Otago green skink (East Otago). Photographed by Carey Knox



Otago green skink (North Otago). Photographed by Carey Knox

Lakes skink

Oligosoma aff. chloronoton “West Otago”

Other names: green skink (formerly)



Conservation status

Regional | Threatened: Vulnerable

National | Threatened: Vulnerable

Description

Body length: up to 110 mm snout-vent length (SVL), with intact tail longer than SVL

The Lakes skink is a large, graceful species of skink.

Upper surfaces: pale to mid-brown, brown-green, or olive-green (occasionally dark brown or black) with light and dark flecks. Cream or pale-brown stripes are sometimes present.

Side surfaces: usually have an indistinct dark-brown or brown-black band that is sometimes bordered by a pale-brown or cream stripe.

Lower surfaces: pale grey (sometimes with a partially pink or orange belly).

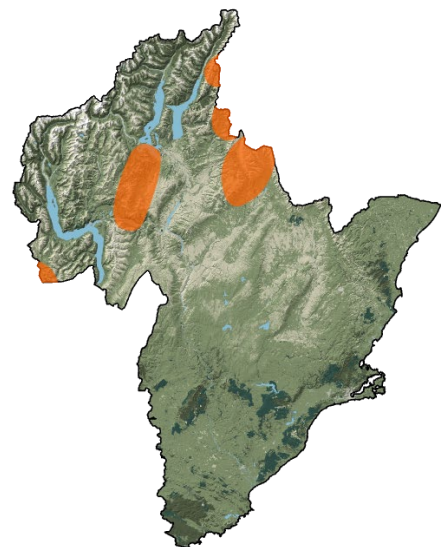
Distribution

Lakes skinks occur from southern Canterbury (south of Lake Pukaki and the Pukaki River, near Twizel) to the Tākitimu Mountains in Southland. They often live in remote, alpine ecosystems, but can be found near Twizel, Wānaka, Cardrona, and Gibbston.

Their populations are primarily restricted to mountainous ecosystems (>500 metres above sea level) and alpine ecosystems, reaching elevations of approximately 1,600 metres above sea level. However, Lakes skinks do occur as low as 300 metres above sea level in some areas.

Feet: moderately long toes with black soles.

Eye colour: dark brown (but may appear to be black).



Ecology & natural history

Lakes skinks are primarily active during the day. They sun-bask (often within dense shrubs or tussocks) to maintain preferred body temperatures and can sometimes be seen scurrying around to seek food and mates. Most of their diet consists of a range of invertebrates (including insects and spiders), but they may also opportunistically consume native fruits and nectar from flowers.

Lakes skinks inhabit rocky shrublands, grasslands, herbfields, river terraces, and lake shores, tussockland, old stream beds, and scree, appearing to prefer damp areas with complex, rocky habitat and lush native shrubs, tussocks, and grasses. At night, Lakes skinks hide underneath rocks and logs, in dense vegetation, rock crevices, and scree, and on other rocky slopes.

Female Lakes skinks may reproduce every one or two years and may produce one to four offspring in summer.

Conservation

Lakes skinks have received limited conservation attention. However, several populations are periodically monitored and scientists are researching new conservation strategies that may help alpine lizards, like the Lakes skink, in New Zealand. Their major threats include habitat modification (by land development, floods, and fires) and introduced mammalian predators, such as rats, mice, stoats, ferrets, and cats. Climate change may also pose a threat to these skinks. They appear to be especially vulnerable to mammalian predators, as they have mostly persisted in high-elevation ecosystems with complex habitat (which enhances their ability to escape predators). Lakes skinks also appear to be sensitive to habitat modification, as they are usually found in damp, shrubby areas that have endured historic fires.

Regional threat listing qualifiers:

Otago is a national stronghold for the Lakes skink, with over 20% of their population found in the region (National Stronghold).

Identifying features

Lakes skinks may be mistaken for two other species of skink that occupy similar locations in Otago, and genetic data are sometimes required to differentiate species. The following characteristics are useful for identification: Lakes skinks can be distinguished from Otago green skinks (*Oligosoma aff. chloronoton* “eastern Otago”) and Southland green skinks (*Oligosoma chloronoton*) by their head shape and colouration, as Lakes skinks typically have a proportionately longer snout than these two skink species and their upper surfaces tend to be brown (vs. usually green in Otago green skinks and Southland green skinks).



Lakes skink (Wānaka). Photographed by Carey Knox



Lakes skink (Wānaka). Photographed by Carey Knox



Lakes skink (Oteake Conservation Park). Photographed by Carey Knox

Southland green skink

Oligosoma chloronoton

Other names: green skink, green-backed skink



Conservation status

Regional | Threatened: Critical

National | Threatened: Critical

Description

Body length: up to 113 mm snout-vent length (SVL), with intact tail longer than SVL

The Southland green skink is a large, robust species.

Upper surfaces: vibrant green, brown, or copper, usually with extensive light and dark flecks (sometimes with pale-brown, copper, or gold stripes).

Side surfaces: usually have an indistinct dark-brown or black band that is sometimes bordered by a pale-brown or copper stripe.

Distribution

Southland green skinks occur from southern Otago (near Clinton/the Catlins) to the Tākitimu Mountains in the west (possibly as far as Te Anau) and southwards to Tiwai Peninsula, Southland. They also occur on several islands in Foveaux Strait (e.g. Tihaka/Pig Island, Rarotoka Island, and Ruapuke Island). Populations are extremely patchy but relatively widespread from coastal ecosystems to mountainous areas, reaching elevations of approximately 800 metres above sea level.

Lower surfaces: pale brown, cream, grey or copper (sometimes with a partially red belly).

Eye colour: dark brown (but may appear to be black).

Feet: moderately long toes with copper, brown, or black soles.



Ecology & natural history

Southland green skinks are primarily active during the day. They sun-bask (often within dense shrubs) to maintain preferred body temperatures and can sometimes be seen scurrying around to seek food and mates. Although they mostly feed on a range of invertebrates (such as insects and spiders), these skinks may opportunistically consume native fruits, nectar from flowers, and other small lizards.

Southland green skinks inhabit rocky grasslands, shrublands, and herbfields, as well as wetlands and dunelands. They appear to prefer damp areas with complex, rocky habitat and lush native shrubs, grasses, tussocks, flax, and ferns. At night, they hide underneath rocks and logs, in dense vegetation, and in rock crevices.

Females reproduce annually and may produce one to four offspring in summer.

Conservation

Southland green skinks have become locally extinct throughout most of their former range and are now only known from a handful of locations. Recent lizard surveys indicate that Southland green skinks appear to be common in at least two locations, but may be discovered elsewhere. In Otago, they are only known to occur near the region's southern limits in general location.

Their major threats include habitat modification (by land development and fires) and introduced mammalian predators, such as rats, mice, stoats, ferrets, and cats. Climate change may also pose a threat to these skinks. They appear to be especially vulnerable to mammalian predators, as they have mostly persisted in ecosystems with complex habitat, which enhances their ability to escape predators. Southland green skinks also appear to be very sensitive to habitat modification, as they are usually found in damp, shrubby areas that have endured historic fires and have complex ground cover.

Regional threat listing qualifiers:

The northern limit of their natural distribution is in the Otago region (Natural Range).

Identifying features

Southland green skinks may be mistaken for several other species of skink that occupy similar locations in Otago. The following characteristics are useful for identification:

Southland green skinks can be distinguished from Otago green skinks (*Oligosoma* aff. *chloronoton* "eastern Otago") and Lakes skinks (*Oligosoma* aff. *chloronoton* "West Otago") by their head shape and colour, as Southland green skinks have a proportionately shorter snout than these two species and often have vibrant copper scales (which are absent in Lakes skinks and Otago green skinks). Southland green skinks are also typically a brighter green than Lakes skinks and Otago green skinks (with more black scales on the back and sides).



Southland green skink (Hokonui Hills). Photographed by Carey Knox



Southland green skink (Tākitimu Mountains). Photographed by Carey Knox



Southland green skink (Tākitimu Mountains). Photographed by Carey Knox