



Kaikōura International Dark Sky Sanctuary



kaikouradarksky.nz



Kaikōura Dark Sky Trust

Our vision is to encourage the protection, enhancement, and preservation of the exceptional dark skies of Kaikōura

In 2020, a small group of passionate volunteers, led by Nicky McArthur, owner of the Puhi Peaks Nature Reserve, instigated the beginning of the Kaikōura Dark Sky movement.

The group quickly grew to encompass community members, local astronomers, business owners and local government organisations. Formalising as the **Kaikōura Dark Sky Charitable Trust** in 2022.

The trust is operated by volunteers with the help of one part-time paid coordinator.



At the beginning of our journey, we realised we are lucky to have some of the darkest skies on Earth.....

Since 2020, we've been working together to prevent the spread of artificial light at night and wherever possible, to reduce it.



Photo credit: Moana Skies - jwpkphotography



The Dark Sky Team

- **Patron** - Nicky McArthur
- **Trustees** - Lisa Bond (Chair), Peter Sutton, Larry Field, Will Doughty, Brian Horsfall, Chris McFetrich
- **Project Coordinator** - Colette Doughty
- **Working Group Supporters** - Ann McCaw, Ted Howard, Rachel Gillespie, Bradley McConville, Lynette Buurman
- **Kaikōura District Councillor Representatives** - Tony Blunt, Josh McInnes

Kaikōura International Dark Sky Sanctuary

On 12 September 2024, Kaikōura was officially recognised as the world's
22nd International Dark Sky Sanctuary

<https://darksky.org/places/kaikoura-international-dark-sky-sanctuary/>



Kaikōura Sanctuary Boundary

98% of the Kaikōura district is within the designated sanctuary. This is approximately 2,039 square km. The remaining 2% covers the township and immediate surrounding area which we hope in time will become an DarkSky International Community.





Our Journey was initially inspired because of the plight of the Hutton's shearwater

Hutton's shearwater / Titi

- Nationally endangered bird
- Only seabird globally to breed in an alpine environment
- Highest breeding seabird in the world
- The Seaward Kaikōura Range has the last two breeding colonies left on earth!

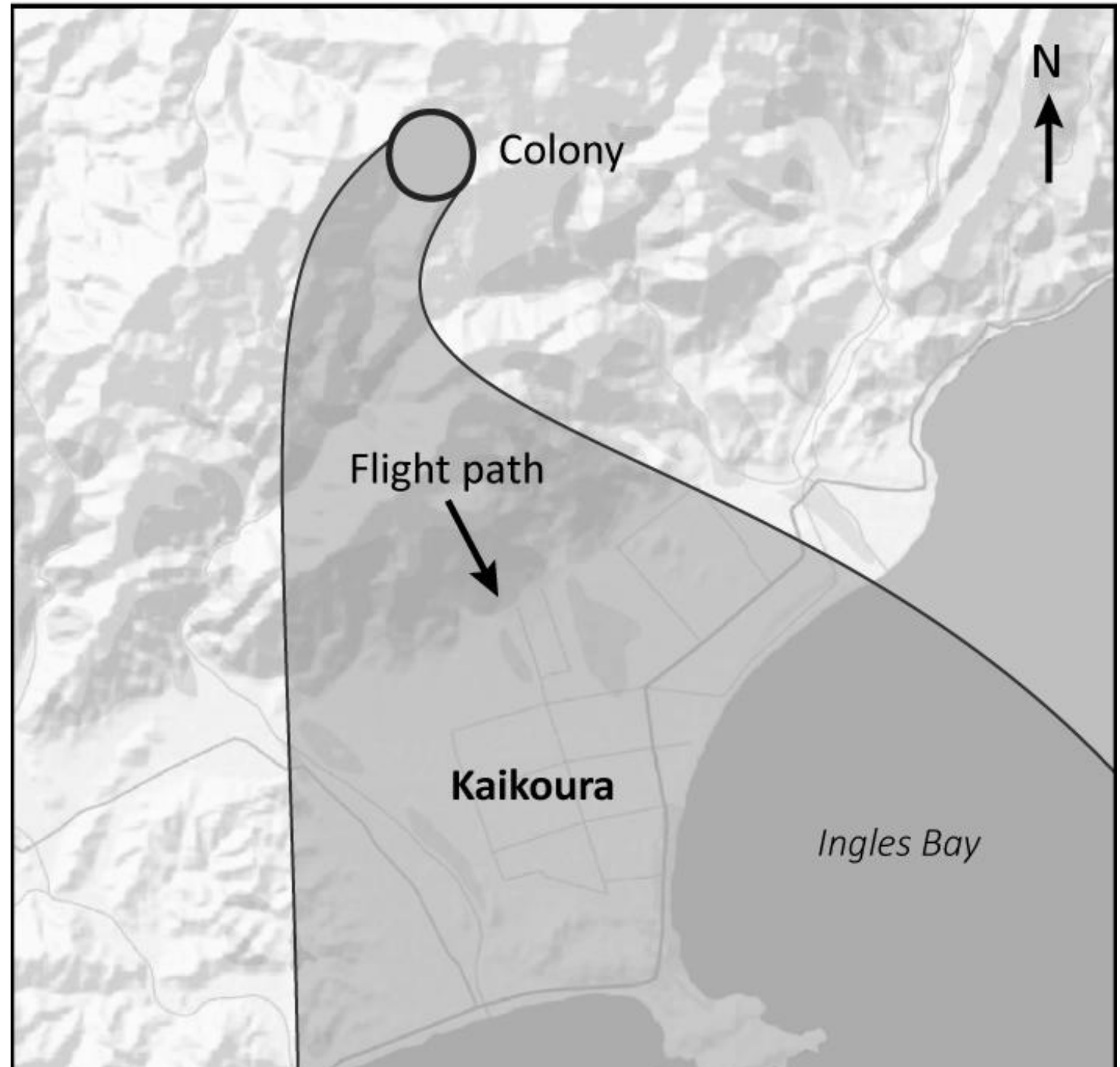


Titi Breeding season

- There are two remaining wild colonies, located in the headwaters of the Kowhai River and on private land (Puhi Peaks Nature Reserve), and a predatory free colony on the Peninsula run by the Hutton Shearwater Charitable Trust.
- From late August Titi spend 2 months competing for burrows and mates before laying a single egg between late-October to mid-November.
- They travel up to 20 km to the sea to feed each day.
- Upon hatching the chicks are raised by both parents for 80 days.

Fledgling Season

- Chicks fledge their nest between **mid-March to early April**.
- They depart at night on their maiden flight to the ocean.
- Fledglings later migrate with adult Hutton's shearwaters to the warm and fish-rich coastal waters off Australia, where they spend their first 3-4 years until returning to breed in Kaikōura.





Threats

- Predation in the burrows was always the biggest threat to the Tītī but an ever-growing threat for these last surviving birds has become **artificial light at night (ALAN)**.
- The **lights of Kaikoura** can attract and disorient the birds off their flight to the sea, especially during poor weather conditions.
- The birds are prone to **crash landing** on land prematurely or colliding with lamp poles or vehicles.
- Once on the ground, the birds are **unable to take off** & become victim to cars and easy prey to domestic predators. **They need to be rescued to survive.**

Rescue

If you find **Hutton's shearwater fledglings** from **March-April**, please rescue immediately and drop off at the **HUTTON'S HUB** next to the Department of Conservation office on 115 Ludstone Road.

At other times please call the **Hutton's Shearwater Charitable Trust** on 027 442 4281 or 021 026 96582 if you require assistance.



Who are DarkSky International?



A global non-profit organisation that works to restore the nighttime environment and combat light pollution through advocacy, educational programmes, lighting initiatives etc. They set up a certification programme to help conserve regions around the world with star filled night skies.

There are 5 types of certification - sanctuary, reserve, place, community and park. All with different criteria. <https://darksky.org>

What is a Sanctuary - often the most remote (and often darkest) places in the world where conservation is most critical. **This is us!**

What is a Reserve - has a dark “core” zones surrounded by a populated periphery where lighting policy controls protect the darkness of the core. eg MacKenzie in Tekapo.

New Zealand - Working to Become a Dark Sky Nation

Currently there are 10 dark sky accredited places across the country with many more aspiring places who are well on their journey.

Accredited Places

Kaikōura Dark Sky Sanctuary

Tāhuna / Glenorchy Dark Sky Sanctuary

Aotea / Great Barrier Island Sanctuary

Stewart Island / Rakiura Sanctuary

Aoraki Mackenzie Dark Sky Reserve

Wairarapa Dark Sky Reserve

Naseby Community

Wai-iti Dark Sky Park

Oxford Forest Conservation Area

Kawarau Gibbston Dark Sky Park

Accredited and Inspiring Places



DarkSky International Accreditation Requirements

When the Trust set about gaining accreditation, we followed these key steps:



Proved we are an area of **outstanding ecological importance** and are working on protection



Proved our **night sky is exceptionally dark** by taking SQM readings



Measured our public lighting and looked at what was **compliant** (lighting inventory)



Updated the **district outdoor lighting rules** through a private plan change



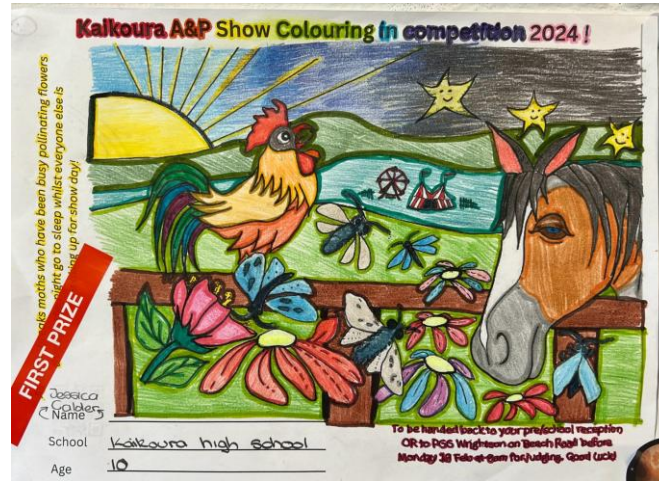
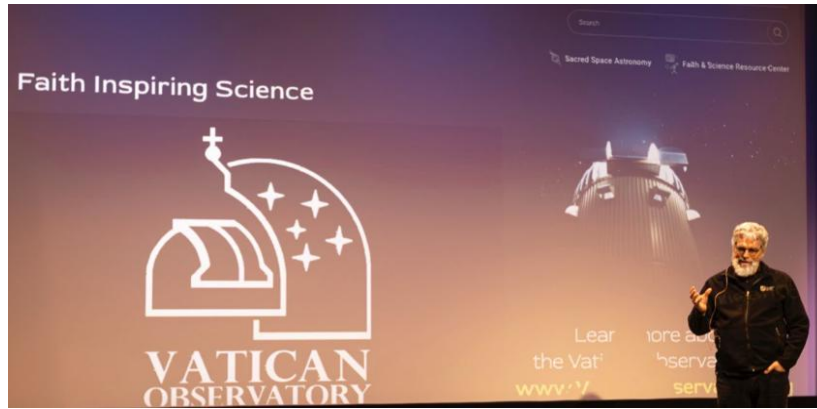
Carried out community **education and outreach.**

Connecting

Throughout the year, we host free talks and events and support community gatherings across Kaikōura.

We'd love to connect with you whether that's through a short presentation, a talk, bringing along a display, or simply catching up over a coffee and a chat.





What is Light Pollution?

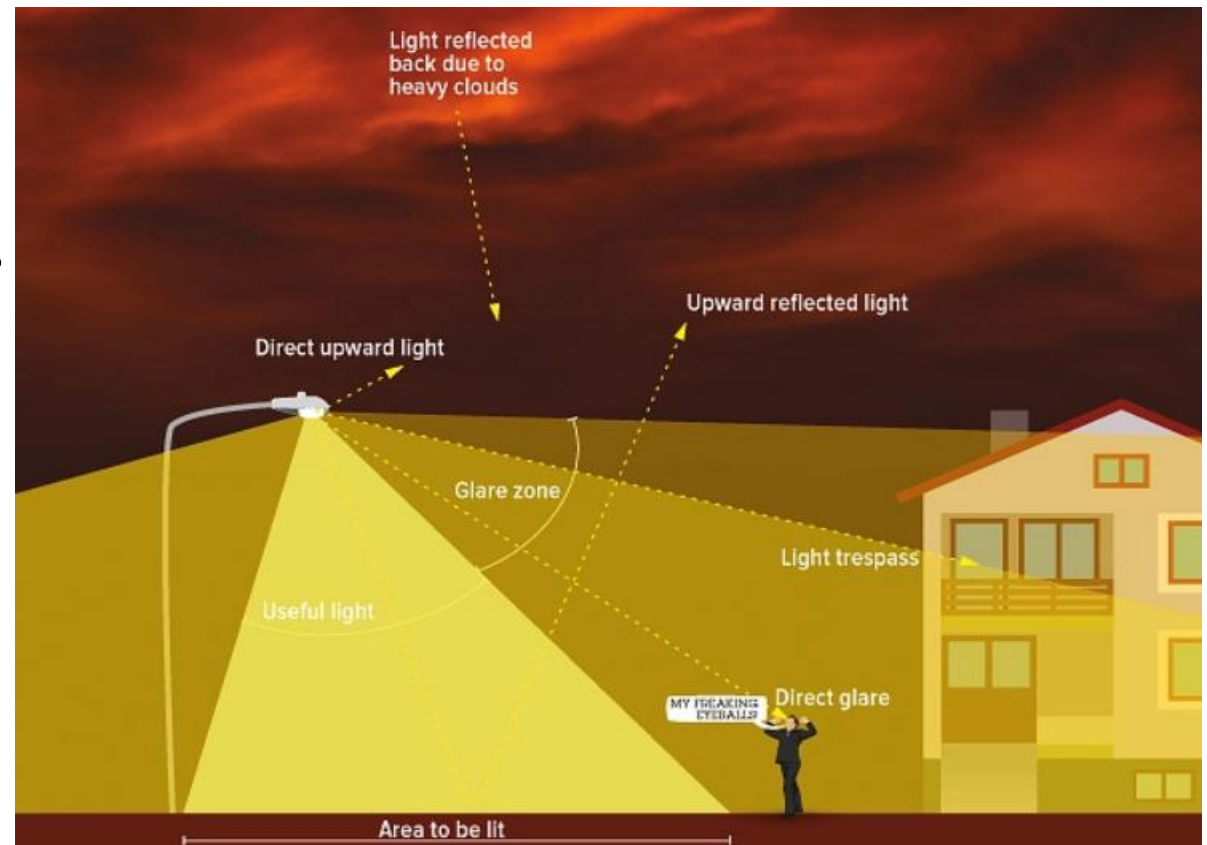
Light pollution is the result of outdoor lighting that is not properly shielded downward, allowing light shine into the eyes and the night sky, and light that is bright blue white in colour.

Light pollution affects lots of things -

- Blocks our view of the stars and night sky
- Disrupts nocturnal wildlife and ecosystems
- Affects human sleep and wellbeing
- Wastes energy and money

Protecting our night skies is a win win for -

- Our environment
- Our health
- Our local identity



Shielding Your Lights Helps Protect Our Night Sky

Not Good (X)



- Light shines in all directions
- Causes glare and light pollution
- Disorients wildlife

Good (✓)



- Fully shielded light
- Light downwards below horizontal
- Protects night sky and wildlife

LIGHT POLLUTED SKY



UNACCEPTABLE

Unshielded/
Poorly shielded

BAD

Partially shielded

BETTER

Fully shielded
(Light source fully covered)

BEST

Fully shielded +
timer/motion sensor

COLOUR TEMPERATURE of light is measured in Kelvin (K)

Use a **warm white bulb** at 3000 Kelvin
Preferably lower towards 2200 Kelvin



Updated District Outdoor Lighting Provisions

In December 2024, the Kaikōura District Council fully implemented their updated outdoor lighting standards.

Here's a very brief summary of compliance:

Use motion sensors – Lights that turn off within 5 minutes comply.

or

Install fully shielded fittings

&

Use warm white bulbs – 3000K or lower

Outdoor Lighting Display Unit



Creating the portable lighting display was a community project with thanks to the Community Shed & Josh Chambers. We could bring this to your school, business or event.

First Year Sanctuary Achievements

Over the first 12 months of accreditation we saw plenty of progress:

- **District-wide lighting standards adopted**, ensuring all new outdoor lighting meets dark sky approved requirements.
- **A mobile outdoor lighting display built through community collaboration**, helping us visually understand what “good and not so good lighting” looks like.
- **A surge in astro tourism experiences** for locals and visitors to enjoy. In true Kaikoura style we love to be unique – zipping under the Milky Way, dining under the stars, astro selfies and expert night sky tours and storytelling. Follow our [‘discover, stay, dine’](#) page.

- **Local accommodation providers begin to install unique features** such as stargazing hot tubs and outdoor seating areas to create memorable night sky experiences. Follow our '[discover, stay, dine](#)' page.
- **Free Young Astronomers Programme launched by Moana Skies**, sparking curiosity and confidence in our local tamariki.
- **Community stargazing evenings**, hosted by the Trust and local astro tourism operators, are drawing growing crowds.
- **SH1 lighting replacement** with dark sky compliant LED lights fitted with 2200 Kelvin colour.
- Free **community talks and educational material** produced.
- District wide sky **darkness measurements programme** at 14 sites.

Maintaining Our Sanctuary Status

We've worked hard to get the Sanctuary accreditation but we **need to keep it**. A detailed **annual report** is submitted to IDA and if we don't meet requirements we risk losing our status.

The **biggest identified threat** to our Sanctuary is the **current light pollution** from the town and growing light pollution as the district develops.

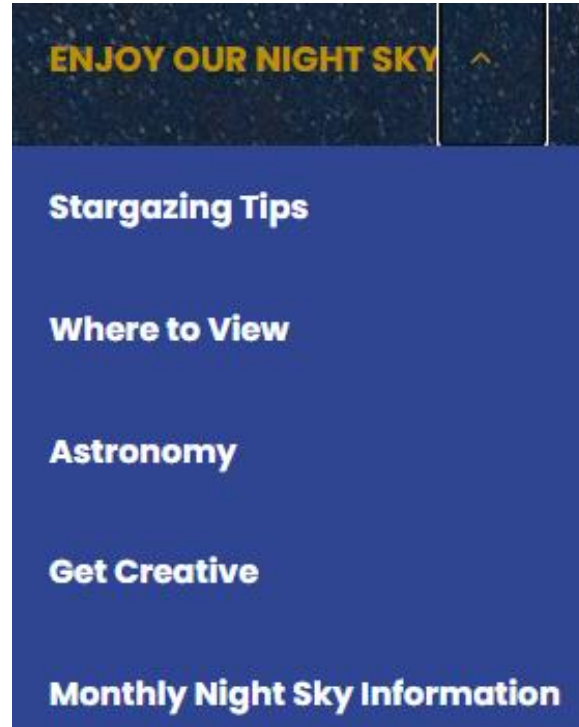


The trust has a lot to do -

- Government organisations - working to **upgrade poorly shielded lights at many public facilities**.
- Worst polluters - working to **encourage business owners and homeowners** with poorly shielded and very bright lighting to see the value in upgrading as and when they can afford to.
- Enjoyment - providing community talks and events to **encourage enjoyment of the night sky**.
- Community application - working towards the town being an **International Dark Sky Community**.

Self Guided Stargazing Tips

Check out our website for lots of information around free self guided stargazing.



Kaikouradarksky.nz



Wrap up warm



Choose your viewing location



Let your eyes adapt to the dark



So many stars!



Milky Way & beyond



Learn the constellations in the sky



Spot the planets with your naked eye



Can you see a meteor shower (shooting star)?



Stars move across the sky



Try using binoculars



Look through a telescope



Apps on your phone

Economic Benefits For ALL businesses



Over 80% of the world's population can no longer see the stars due to light pollution. As awareness grows, more people are actively seeking out certified Dark Sky places to experience the night sky in all its natural beauty.



Kaikōura's status as a Sanctuary presents a unique opportunity. By continuing to reduce light pollution, we not only protect our night sky but also attract astrotourism which is a growing global trend.



This is a **win-win for ALL local businesses**: from astrotourism operators to accommodation providers, cafés, restaurants, shops, and service stations — we all stand to benefit from increasing visitors numbers drawn by our exceptional dark skies.



Astrotourism Operators



We are fortunate to have an exciting range of astro tourism experiences for locals and visitors to enjoy. In true Kaikoura style we love to be unique – zipping under the Milky Way, dining under the stars, astro selfies and expert night sky tours and storytelling. These local eco conscious operators offer awe inspiring ways to connect with our pristine night skies and natural environment.

Current local astro operators:

- Moana Skies (telescopic tours - moanaskies.co.nz)
- Kaikoura Stargazing (rachelgillespie - nztraveladventure.co.nz)
- Eco Zip (Starflight Zipline - ecozipadventures.com)

Kaikouradarksky.nz/discover-dine-stay



Accommodation Providers

[Kaikouradarksky.nz/discover-dine-stay](https://www.kaikouradarksky.nz/discover-dine-stay)

Local accommodation providers are offering unique features such as a stargazing hot tub or deck, books, star charts and binos and helping to organise private or group tours to create memorable night sky experiences.

Businesses committed to reducing their light pollution and supporting the work of the Trust are recognised and promoted through our website.

Currently recommended accommodation providers:

- Hapuku Lodge - (offering evening stargazing tours - [hapukulodge.com](https://www.hapukulodge.com))
- Mangamaunu Retreat (stargazing area and private tours - [mangamaunu-retreat.co.nz](https://www.mangamaunu-retreat.co.nz))
- Lynton Downs Station (books, puzzles and binos - [lyntondowns.co.nz](https://www.lyntondowns.co.nz))
- The Hike Hut ([thehuthikekaikoura.co.nz](https://www.thehuthikekaikoura.co.nz))
- Te Mahuru Retreat - (stargazing hot tub and deck - [temahururetreat.co.nz](https://www.temahururetreat.co.nz))

How Can You Help Us To Protect Kaikōura's Night Skies ?

- Check your own outside lighting. (We're happy to come & advise)
- Help spread the word around protection
- Give some time as a volunteer (helping at events, with social media, making fun videos for us, funding ideas)
- Support us through a one-off donation
- Become a business supporter

Our work relies on the generosity of many – volunteer time, in kind professional assistance, donations, sponsorship and funding 🙏

Become a Business Supporter

We have created a **four-tier badge system**. Annual supporters will be thanked on our media channels as well as provided with the relevant bird to use for your marketing purposes. A tax deductible donation receipt will also be provided.

Morepork



Up to \$500 pa

Little Blue



Up to \$1000 pa

Hutton's shearwater



Over \$1000 pa

Dotteral



Partner

Donate

Every single \$ counts



We are incredibly grateful for every donation towards the ongoing efforts of the trust. As a registered charity (50109391) we can provide donation receipts



You can donation today online - kaikouradarksky.nz/connect



Thank you to everyone who has supported us so far



Our stars shine a little brighter because of you!

Kaikōura 2026 Calendar

June 2026 to June 2027

ON SALE SOON

12 fantastic night sky
images from across the
district.





Thanks for
your time

Contact us any time
kaikouradarksky@gmail.com

Photo credit: Rachel Gillespie