



Hopes from the Ends of the Earth

Joel Peña, Chiloé Protegido
Santiago, Chile

☀ Call to Action

Protect our oceans and find ways to help sustain marine life. Follow Joel on Twitter at: @joelpanichine

☀ Values

- Leadership
- Internationalism
- Solidarity
- Community Building
- Environmentalism

☀ Lessons Learned

Wherever you are, look for inspiration in the nature that surrounds you.

Be a teacher, and a helper: show people what areas of their lives and the environment could be improved, and find ways to help them to improve them.

When the challenge seems enormous, organize, recruit, and include the rest of your community. Then tackle the problem together.

For Joel Peña, it was an intimate encounter with one marine animal that made him want to become a climate activist.

The son of a family of seafarers, Joel grew up spending summers along the coasts of Chile with his grandfather, fishing. One day, finding himself within an arm's reach of a dolphin, he was inspired to dedicate himself to preserving his country's unique biodiversity.

After joining the Chilean branch of the Fridays for Future movement, Joel founded an NGO to support his own community. Called Chiloé Protegido, the organization aims to bring awareness to the unique biodiversity of the Chiloé islands in Patagonia, through a number of creative techniques such as beach clean-ups, animal tracking, and conservation training for young people.

☀ Language Arts

Working in groups, create a presentation about five animal species that can only be found on Chiloé Island. What are these species like? What makes them unique? What is their role in the environment? Why are they endangered? What is being done, or what can be done to preserve them?

Write a research essay on biodiversity in Patagonia. Start by defining what biodiversity is, and why it is important; then write about Patagonia and what makes the species that thrive in this region unique.

After watching your peers' presentations and using the information you learned in your research, create a series of six TikTok videos in which you educate people about the importance of these species (choose your favorite six); the need to preserve them; and how people can get involved in preservation efforts.

STEM Activities

In this [lesson plan from Teach Engineering.org](#)¹, students learn how dolphins use echolocation to locate prey, escape predators, and navigate their environment (for example, how they avoid gillnets set by commercial fishing vessels).

Comprising 71 percent of Earth's area, water serves as a fundamental resource for both humans and wildlife. Oil spills inflict damage upon wildlife, destroy ecosystems, and toxify drinking water. In this [activity from Marineland](#)², students examine how oil interacts with water, and build their own marine ecosystem and explore methods for cleaning up oil spills. [Background information](#)³.

This [lesson plan from the National Marine Sanctuaries](#)⁴ introduces students to the National Marine Sanctuary System (NMSS). Students explore the digital resources of NMSS to learn how national marine sanctuary sites are designated, and why they are important to protect and preserve the ocean. Then they conduct independent or small group research on specific national marine sanctuaries using 360° videos, photos, and print resources. Finally, they use the information they have collected to compare and contrast the four different sites and create a slideshow presentation.

[Mission Blue](#)⁵ seeks to raise public awareness and inspire action to protect marine areas around the world called Hope Spots⁶. What makes an area a Hope Spot? Are there any Hope Spots located in or near Chile? What makes it a Hope Spot? What is the closest Hope Spot to you? Why is it a designated Hope Spot? Is it a formal marine protected area? Are there any marine areas near you that you think should be a Hope Spot? If so, you can nominate it to become a Hope Spot by [following the directions provided here](#)⁷.

Sustainability Innovations

Joel is one of many Chileans who are actively involved with climate change issues. This [article](#)⁸ highlights 10 different sustainability innovations in Chile, including bee colony systems and systems for food storage among many others.

In 2014, the Organization for Economic Cooperation and Development (OECD) created an analysis, Chile's Pathway to Green Growth: Measuring Progress at a [Local Level](#)⁹, to assess progress toward sustainable goals in Chile. What are some of the highlights of their goals, and how have they changed in the past seven years?

Joel had the rare opportunity to participate in COP25 in Madrid thanks to his work with Fridays for Future. [Chile](#)¹⁰ had originally been scheduled to host COP25, but they had to cancel due to civil unrest, so Spain hosted instead. After reading about this situation, how do you think climate change and social change affect one another?

Sustainability Career Pathways

Marine Biologist. Marine biologists study creatures, and their ecosystems, in oceans around the world--from the charismatic and highly intelligent dolphins to the far humbler creatures that make up the base of the food chain. [Learn more about the career of marine biologist here](#)¹¹.

Oceanographer. An oceanographer is a scientist who studies the ocean, and helps to protect, conserve, and restore marine environments. Oceanographers can study the life, chemicals, fluid dynamics and physics, and even the geology of the oceans' floors. [Check out this field and its many variations here](#)¹².

Community Environmental Educator. Many communities offer environmental educational opportunities to their residents through local governments, parks, museums, and even neighborhood associations. Do you love teaching? Working with volunteers? Organizing community events? This could be the career for you. [Explore the field of community environmental education here¹³](#).

-
- 1 https://www.teachengineering.org/lessons/view/duk_bycatchunit_musc_less2
 - 2 <https://marineland.net/wp-content/uploads/2020/03/Whats-in-the-Water-Lesson-Plan.pdf>
 - 3 <https://marineland.net/wp-content/uploads/2020/03/Whats-In-the-Water-Background-Builder-Web-Edit.pdf>
 - 4 <https://nmssanctuaries.blob.core.windows.net/sanctuaries-prod/media/docs/20200606-system-lesson.pdf>
 - 5 <https://mission-blue.org/>
 - 6 <https://mission-blue.org/hope-spots/>
 - 7 <https://mission-blue.org/hope-spot-nomination-guidelines/>
 - 8 <https://marcachile.cl/en/innovation-entrepreneurship/10-green-innovations-made-by-chileans-the-chilean-captain-planets/>
 - 9 https://www.oecd.org/cfe/lecd/Green_growth_Chile_Final2014.pdf
 - 10 <https://www.climatechangenews.com/2019/10/30/chile-pulls-hosting-cop25-climate-talks/>
 - 11 <https://www.thebalancecareers.com/marine-biologist-125619>
 - 12 <https://www.environmentalscience.org/career/oceanographer>
 - 13 <https://naace.org/cepro/blog/community-environmental-education>

