



# Healthy Communities, Thriving Planet

California Academy of Sciences Strategic Plan 2021–2026  
Executive Summary | January 13, 2021

The California Academy of Sciences is redefining itself as a purpose-driven organization dedicated to tackling the global ecological crisis. Our aim is to create scalable models for increasing the health of social and ecological communities, and to share these models broadly. To maximize our impact, we are focusing our efforts on three initiatives with strong potential to make meaningful change. We recognize that success in this work depends on deep, cross-sector collaborations, and we believe that the Academy is poised to be a leader and effective ally in this space. The *Healthy Communities, Thriving Planet* strategy defines our pathway forward.

## Confronting a Global Crisis

We live at the most consequential moment in human history, a time of both hope and peril. Humans have triggered the escalating climate and biodiversity emergencies that together comprise an existential crisis now threatening the bulk of life on Earth, including us. On our present course, more than a million species will go extinct by the end of this century, triggering the collapse of marine and terrestrial ecosystems worldwide. Simultaneously, higher sea levels and hotter surface temperatures will displace billions of people, fueling unprecedented humanitarian disasters. Based on the best science available, *we must halt this crisis by 2030 if we hope to avoid dire consequences for both people and planet.*

The good news is that we have the knowledge and power needed to end this crisis and, in the case of biodiversity, even to reverse course. Effective solutions are well understood and a thriving future is within our grasp, but *only* if we decide to act and follow through—now. So, how can we rapidly transform our interactions

with the natural world from being largely negative and degenerative to being positive and regenerative?

The required transformation cannot be achieved by tweaking existing societal structures. We must reimagine our relationship with the natural world, seeing ourselves not as outside and above nature, but as fully embedded within it, dependent upon it, and partnering with it. We are part of nature.

Recent global upheaval—including a global pandemic, wildfires, droughts, social unrest, and political tumult—provides the impetus to shake loose old preconceptions, dream big, and act fast. Because every place is unique in its culture, geography, climate, and ecology, most solutions will need to be place-based, engaging local and regional communities.

Strong leadership is now required to rally a diverse array of forces and resources in service of a thriving future.



## Why Us?

Natural history museums and allied institutions (e.g., aquariums, zoos, and botanical gardens) are immensely popular, collectively welcoming more people each year than professional sporting events. These same organizations are also *the* most trusted sources of scientific information. For 168 years, the

California Academy of Sciences has explored the natural world and inspired the public with wonders of our planet and cosmos. Public-facing assets include a world-class natural history museum, aquarium, planetarium, and rainforest, all housed under a vast green roof within one of the most sustainable museums on Earth. Behind the scenes is a burgeoning research enterprise, featuring a collection of 46 million objects and dozens of scientists studying biological diversity around the globe. An experienced cadre of science and environmental educators engages diverse learners through in-house and online platforms, augmented by the largest social media presence of any science- or nature-based museum. Add to this our location in a highly progressive city with deep intellectual, financial, and technological resources, and it's clear that the Academy is well positioned to be a leader—one of many—in this critical work.

## Core Strategic Elements

The Academy's most recent mission—to explore, explain, and sustain life—has done an admirable job inspiring us and catalyzing results. But current global challenges demand a new guiding light. It's time for us to move from “explain” to “engage”—listening to, learning from, and partnering with communities, amplifying voices that have all too often been ignored. Similarly, we must transition from “sustaining” to “regenerating” life. Sustainability tends to focus on “doing less bad,” with the underlying assumption that the best we humans can do is limit our negative impacts. Regeneration, in contrast, assumes that we have the potential to transform environmentally destructive human practices into those that enhance the health of ecological and social systems.

The Academy is regarded today as a top-tier cultural institution, a wondrous place to learn about science and nature. Moving forward, we will build on this exceptional reputation by expanding the public's perception. We seek to be viewed first and foremost as embracing a compelling *purpose*. After much consultation and discussion, we decided that this purpose should be *regenerating the natural world*. The aim here is not to return to some imagined pristine state, but rather to seek lessons from the past and present as we partner with the natural world towards a thriving future.



## Mission

***We regenerate the natural world through science, learning, and collaboration.***

With these ten words, the Academy's new mission conveys a bold purpose and a theory of change. Our newly identified purpose, arguably the most pressing cause of this century, is *regenerating the natural world*—that is, halting the biodiversity crisis and restoring the health of ecosystems. This work is directly aligned with emerging global efforts, including the United Nations declaration of 2021–2030 as the UN Decade on Ecosystem Restoration. Our theory of change is rooted in three elements, or pathways: biodiversity science, environmental learning, and community collaboration. The “we” in this statement embraces collaboration: to accomplish the work of nature regeneration, we must actively empower and engage with a diversity of partners, both human and nonhuman. In short, humanity's relationship with the natural world is broken, and the Academy dedicates itself to restoring this bond.

## Vision

***Within a generation, the natural world is healthier, more resilient, and wilder each year.***

At present, the stories we tell of the future tend to be either apocalyptic or spectacularly high-tech, with the

natural world devastated, homogenized, or irrelevant. A new, inspirational narrative is desperately needed, one rooted in thriving for both people and Earth. The Academy's new vision describes the future we want to inhabit. Going far beyond sustainability, this is a world that is regenerative, both biologically and culturally. From inner cities to remote wilderness, it is a world that is much wilder, inhabited by wondrous arrays of plants, animals, and microbes—communities with the resilience needed to remain healthy in the face of changing conditions. And, again, this is a world that we seek to create with others.

## Values

Collectively, five values orient us toward achieving our strategy. Through **exploration**, we generate new knowledge and understanding of the natural world and the role of people within it. Embracing the challenge of the present moment, we act with **courage** in pursuit of a flourishing future for all life on Earth. We embrace **diversity and equity** because now, more than ever, diverse communities with empowered voices are needed. We harness the power of **advocacy** to shift policy and public opinion in support of thriving social and ecological communities. Finally, we leverage our efforts through **collaboration**, working with cross-sector partners to reach higher and to scale impacts.

## Our Approach

Efforts to conserve nature have traditionally focused on preservation—of wildlands, charismatic species, or both. The underlying assumption has been that nature is “out there,” separate from us, and the best we can do is minimize our negative impacts through fences and laws. This pivotal moment demands a new kind of conservation, one that reaches beyond preservation and sustainability toward restoration and regeneration. In a degraded and rapidly changing world, we must remake natural and human communities to be healthier and more resilient.

Our theory of change invokes three pathways. Like other science museums, the Academy has traditionally pursued two spheres: science and education. To achieve the strategy outlined here, we will build on these strengths. Through **biodiversity science**, we will generate new knowledge about the evolution, structure, function, and health of ecosystems. Through **environmental learning**, we will provide broadly accessible, hands-on science learning that ensures people understand, care about, and act on behalf of their local nature.

To achieve the goals laid out in this strategy, we will also expand the Academy’s capacity in a critical third sphere: **collaborative engagement**. Informed and engaged communities are essential if we’re going to discover thriving pathways into the future. Potential cross-sector stakeholders include government, K-12 schools, higher education, business, and other nonprofits. For this community-based work, the



Academy will build a team of social scientists and leaders with the needed expertise and experience to deploy a range of engagement strategies, from convenings to collective impact alliances. This third, collaborative engagement sphere will be the essential ingredient enabling the mix of science, education, and community to create profound change.

At present, few places exist for people to meet and discuss pressing issues pertaining to the future of their home place. We envision the Academy becoming a convening hub—a safe place for dangerous ideas—hosting conferences, talks, facilitated dialogues, performances, and other gatherings, all aimed at regenerating the natural world. Many events will welcome in-person and online participation, the latter utilizing a digital platform capable of accommodating very large audiences. Onsite venues will include the Morrison Planetarium and the Hearst Forum (repurposed primarily for events).

Throughout all of this work, we will seek to lift up marginalized voices and we will work with Indigenous Nations, which possess critically needed deep ecological knowledge of their home places. In recent years, widespread acknowledgment has emerged that we cannot address the biodiversity and climate emergencies without parallel progress in social justice. Wherever possible, the Academy will seek to level the playing field, providing youth from historically marginalized communities with opportunities to become scientists, environmentalists, and leaders in their communities.



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## Strategic Initiatives

We believe that the Academy will achieve the greatest impacts over the shortest duration through a narrow and deep strategy, focusing on a small number of integrated initiatives and activities with the capacity to scale. The Academy has elected to concentrate on the following three initiatives because: 1) they represent key existing scientific organizational strengths that leverage both our research expertise and our vast collections; 2) they provide critical leverage points for addressing the biodiversity crisis, representing hotspots of exceptionally diverse and threatened lifeforms; and 3) great potential exists to rapidly expand the public's science and environmental knowledge as a critical first step for implementing community-based models that can serve as global exemplars, enabling our efforts to scale.



### Thriving California

*Thriving California* is a major new Academy initiative that addresses the dual threats of climate change and biodiversity loss in the Golden State, harnessing the power of big data and crowd-sourced community science to build a vibrant model for implementing conservation solutions. This initiative seeks to understand the past, actively monitor the present, and collaboratively create the future with a diversity of partners, from universities, government agencies, and technology companies to nonprofits, K-12 schools, and Indigenous Nations. A newly established alliance of California natural history museums will tap into our respective collections, as well as our expertise in community science, to establish past and present

ecological baselines. All of this data will then be mobilized to enhance environmental learning and inform decision-making. A key goal will be launching the largest ever statewide community science campaign to engage Californians. The ultimate aim is to build a statewide movement that enables natural and human communities to become healthier and more resilient, together.



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### Hope for Reefs

*Hope For Reefs*, now in its second phase, will advance and scale novel strategies to bolster the resilience of coral reefs, from cutting-edge technologies to community-based conservation, while building a powerful global constituency to advocate for reefs. Covering less than one percent of oceans, coral reefs are home to an astounding 25 percent of all marine diversity. Globally, about one billion people rely on reefs for food, coastal protection, and income. Yet these remarkably diverse ecosystems are now threatened by overfishing, pollution, and climate change. Over the next five years, the *Hope for Reefs* team will join forces with a diverse network of partners—focusing on key target locations that include the Philippines, the Maldives, Curaçao, and Brazil—to conduct the most comprehensive survey of global reef biodiversity to date. The resulting mountain of data, combined with prior work and the Academy's robust scientific collections, will be used to guide strategic interventions—from marine protected areas to on-the-reef restoration—enacted with local communities and a wide range of cross-sector stakeholders. Our ultimate goal is to create powerful pathways to boost reef resilience and regeneration in a warming world.



## Islands 2030

*Islands 2030* is a major new Academy initiative focused on the land-based ecosystems of tropical islands. Key aims include: assessing the current health and future resilience of plants and animals; identifying at-risk ecosystems to triage conservation efforts; mentoring a multi-national cohort of biodiversity and conservation leaders; equipping communities with tools and solutions to halt biodiversity loss; and increasing economic opportunities for marginalized people. Earth's islands host the greatest concentration of unique and threatened biodiversity, and they are epicenters of recent extinctions. With ecosystems that are simpler than their mainland counterparts, islands are more susceptible to disturbance, yet more responsive to conservation interventions. Building on a legacy of research and community partnerships, the Academy will concentrate on five archipelagos—the Galápagos, Lesser Antilles, Madagascar, Philippines, and Gulf of Guinea—all of which are hotspots of threatened biodiversity. Partnering with island communities, we will pioneer an approach to conservation that reverses biodiversity loss and builds greener, more resilient economies.

## Impacts

Meaningful success with the *Healthy Communities, Thriving Planet* strategy rests in creating collaborative, scalable models for increasing the health of social and ecological communities, based on science and transformative public engagement. Whether in the San Francisco Bay Area, throughout California, or on remote tropical islands and reefs, three ingredients are essential: biodiversity science, environmental

learning, and collaborative engagement. Within the strategy's five-year span, target communities linked to the initiatives will demonstrate measurable progress in all three areas. On the environment side, we will be able to document a significant increase in ecosystem health, including progress-limiting ecological degradation and increasing resilience. Impact measures include species diversity and abundance (including discovery of previously unknown species), together with indicators of ecosystem function.

On the people side, we'll be able to document a shift in community understanding and engagement. Key measures here will be assessments of science and environmental literacy, an increase in equitable access to biodiversity learning experiences, a boost in numbers of people engaged in community science and on-the-ground interventions, and the development of cross-sector networks creating and implementing plans for improving ecosystem health. Additional measures include newly established protected areas and conservation policies, as well as a dramatic increase in newly trained and engaged youth leaders. Success also means evidence of regenerative biodiversity solutions that benefit marginalized communities, resulting in community-driven models that are just and culturally relevant. Ultimately, because going to scale is a critical aim, yet another measure will be the emergence of locally grown initiatives applying Academy-inspired methodologies in other parts of the world.

There's no time to waste. A thriving future can be ours, but only if we act now. With this strategy, the Academy commits to making meaningful, collaborative progress toward regenerating the natural world in the coming decade and beyond.

