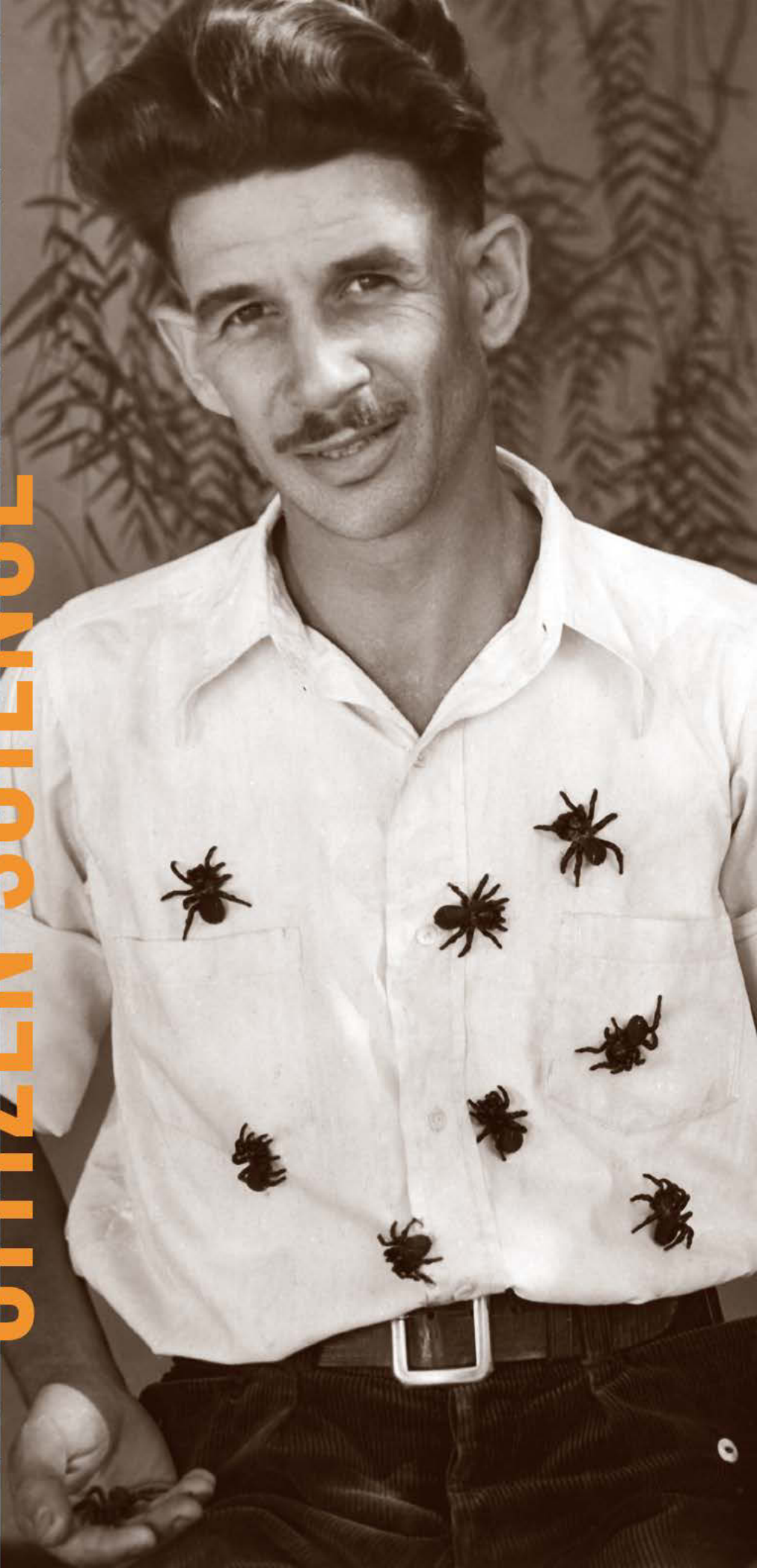


CITIZEN SCIENCE

SAN DIEGO NATURAL HISTORY MUSEUM
2012–2013 Annual Report





Mission

To interpret the natural world through research,
education and exhibits; to promote understanding of
the evolution and diversity of southern California and
the peninsula of Baja California; and to inspire in all
a respect for nature and the environment.

November 2013

Dear Museum Friends,

In this, our 138th annual report to the members of the San Diego Society of Natural History, we celebrate the role of the citizen scientist. The term citizen scientist is a new description for a very old concept, which encompassed the person who, although not formally trained in science, nevertheless made significant contributions as a passionate avocational naturalist.

From earliest times, curious and keenly observant people have been engaged in investigating and documenting the natural world around them. This formed the foundation of our current body of information about plants, animals, and all of natural history.

The founders of the San Diego Society of Natural History represented the citizen scientists of the 19th century: a lawyer fascinated by our native plants; a railroad surveyor who studied beetles; and a publisher known as "Cactus Man." In the pages that follow, take time to get to know these individuals and learn how today, more than ever, we have the opportunity to empower the individual by harnessing technology to contribute to science.

This is a dialogue that all of you have furthered through your support of the San Diego Natural History Museum. For this reason, it is equally important that we, as board and staff, serve as stewards of your generosity and leadership. The 2012–2013 fiscal year marks several important financial milestones as well. In particular, through the leadership of the Museum's Finance Committee, and the diligence of CFO/COO Susan Loveall, our long-term debt was refinanced, resulting in a favorable improvement to our ongoing bottom line.

Simultaneously, long-range planning to complete the Museum's suite of core exhibitions is underway. Galvanized in 2011 by the \$7 million Prop 84 State Parks grant in support of the new exhibition *Coast to Cactus in Southern California*, the Museum has initiated a 30-month Special Projects Campaign. The Campaign, approved by the board in December 2012, will provide funds for the media and technology components necessary for *Coast to Cactus*; organizational bridge funding to sustain operations; and the renovation, expansion, and development of an inspirational exhibition for our Library, *Extraordinary Ideas from Ordinary People: A History of Citizen Science*.

Which brings us back, full circle, to this year's report theme: the citizen scientist. As you read the following articles, consider the voluminous body of data that has been collected in our geographical area and the density of information gathering that is part and parcel of the work of the Museum. The expression, "Many hands make light work" (John Heywood, 1546), aptly reflects the many hands that have touched the Museum's collections and contributed to our vast body of knowledge. Truly, we could not have done it without you.

Thank you for your effort and dedication.

Sincerely,



Michael W. Hager, Ph.D.
President & CEO

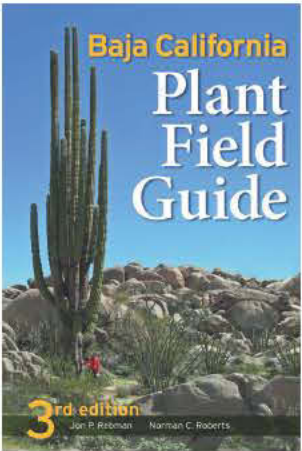


Virginia Crockett
Chair, Board of Directors

BIODIVERSITY RESEARCH CENTER OF THE CALIFORNIAS

The Biodiversity Research Center of the Californias (BRCC) is the research division of the Museum, including the departments of Birds and Mammals, Botany, Entomology, Herpetology, Marine Invertebrates, Mineralogy, and Paleontology, as well as the Research Library. BRCC curators and scientists actively pursue research projects which range from studying the distribution and abundance of vertebrates of the San Jacinto Mountains to the floristics of both states of Baja California. Our scientific staff members also serve as expert advisors who support the scientific accuracy of our exhibitions as well as our educational programs.

Baja California Plant Field Guide Wins Local and National Literary Awards



Over 715 different plants in more than 350 genera in 111 families are described in the third and newest edition of *Baja California Plant Field Guide*. Authored by Museum Curator of Botany and Mary and Dallas Clark Endowed Chair, Jon Rebman, Ph.D., the book offers tribute to the late Norman C. Roberts, author of the first two editions and Museum Trustee Emeritus. As the definitive work on the plants of Baja

California, this title is of great interest not only to botanists in the peninsula, but also to plant enthusiasts in southern California, as 50% of the species listed are also found in southern California and the Sonora desert.

The book has been nominated for or awarded the following prestigious literary awards:

- Gold winner, Reference category, Independent Publisher Book Awards (IPPY)
- Silver Winner, Best Redesign Award, Independent Book Publishers Association (IBPA) award
- Silver winner, Guide and Travel, Pub/West Book Design Awards
- Bronze, Reference category for ForeWord Magazine's Book of the Year Award (BOTYA)
- Finalist, Local Interest category, San Diego Book Awards

The impact of this book extends beyond its pages. The Museum receives 60% of the proceeds of the sale of each book, of which half goes into a fund for Rebman to use specifically for research expeditions in Baja California. This fund will allow Rebman the freedom to explore areas of Baja California when the season is best for specimen collection.

"The desert regions of Baja California and southern California satisfy my need for scientific adventure while providing a sense of excitement towards botany, reverence for nature and its unaltered beauty, appreciation for the complexity of natural history, and an overall feeling of peace and purpose." –Jon Rebman



Curator of Botany Jon Rebman, Ph.D. examines a specimen from the Museum's Herbarium.

BRCC COLLECTIONS BY THE NUMBERS

TOTAL NUMBER OF SPECIMENS:
~7,400,000

BIRDS
NEW SPECIMENS COLLECTED:
394

TOTAL SPECIMENS:
48,808

MAMMALS
NEW SPECIMENS COLLECTED:
237

TOTAL SPECIMENS:
23,845

HERPETOLOGY
NEW SPECIMENS COLLECTED:
182

TOTAL SPECIMENS:
76,582

ENTOMOLOGY
NEW SPECIMENS COLLECTED:
~5,000

TOTAL SPECIMENS:
~650,000

PALEONTOLOGY
NEW SPECIMENS COLLECTED:
64,121

TOTAL SPECIMENS:
1,301,779

BOTANY
NEW SPECIMENS COLLECTED:
9,395

TOTAL SPECIMENS:
228,012

RESEARCH LIBRARY
50,000 VOLUMES

MARINE INVERTABRATES
5,000,000

MINERALOGY
15,000 SPECIMENS

BACKYARD SCIENTISTS

A photo that was taken by an amateur photographer in Malaysia and posted on Flickr was seen by an office-bound entomologist on the other side of the world, who suspected it was an undocumented creature. A new species—dubbed *Semachrysa jade*—was identified.

Earlier this year, UC Riverside invited southern California residents to collect brown widow spiders from their backyards and ship the critters to campus, where the school's researchers were studying distribution of the invasive spider and how to control the pest in urban environments.

The Sunflower Project, now in its sixth year, has a corps of more than 100,000 volunteers that observe bees and other pollinators in all kinds of settings—from backyards to nature trails—to help scientists learn about the lives of pollinating insects.

These are just a few examples of citizen science in action, and they show how everyday people can contribute to extraordinary ideas. Citizen science allows professional scientists to accomplish work that would not otherwise be possible while promoting public involvement in science and engaging volunteers to perform or manage tasks such as collection, observation, measurement, or computation—the very labors of the earliest “natural philosophers” who lacked formal training, but whose painstaking work underpins our collective knowledge.

The concept of citizen scientists is not a new one, as everyday people have actively contributed to science for thousands of years. These passionate and talented amateurs, often with little or no formal scientific training, have made fundamental contributions to our understanding of the natural world. Collector or diarist, artist or photographer, the citizen naturalist has performed the necessary legwork of scientific study, rigorously observing and documenting nature's minutiae for sheer love of the pursuit.

As science evolved over the 20th century into highly structured disciplines, the reliance on self-directed study of the natural world waned while our modern concept of science as a professional discipline became commonplace, practiced by individuals with specialized training and pursued through a standardized method.

But the idea of amateur naturalists making contributions never really went away, and today, the emergence of the Internet, social media, and the “citizen science”

ethic are fostering a resurgence of dialogue between trained scientist and passionate amateur, creating new opportunities for today's citizen naturalists to show scientists things they may never have seen before.

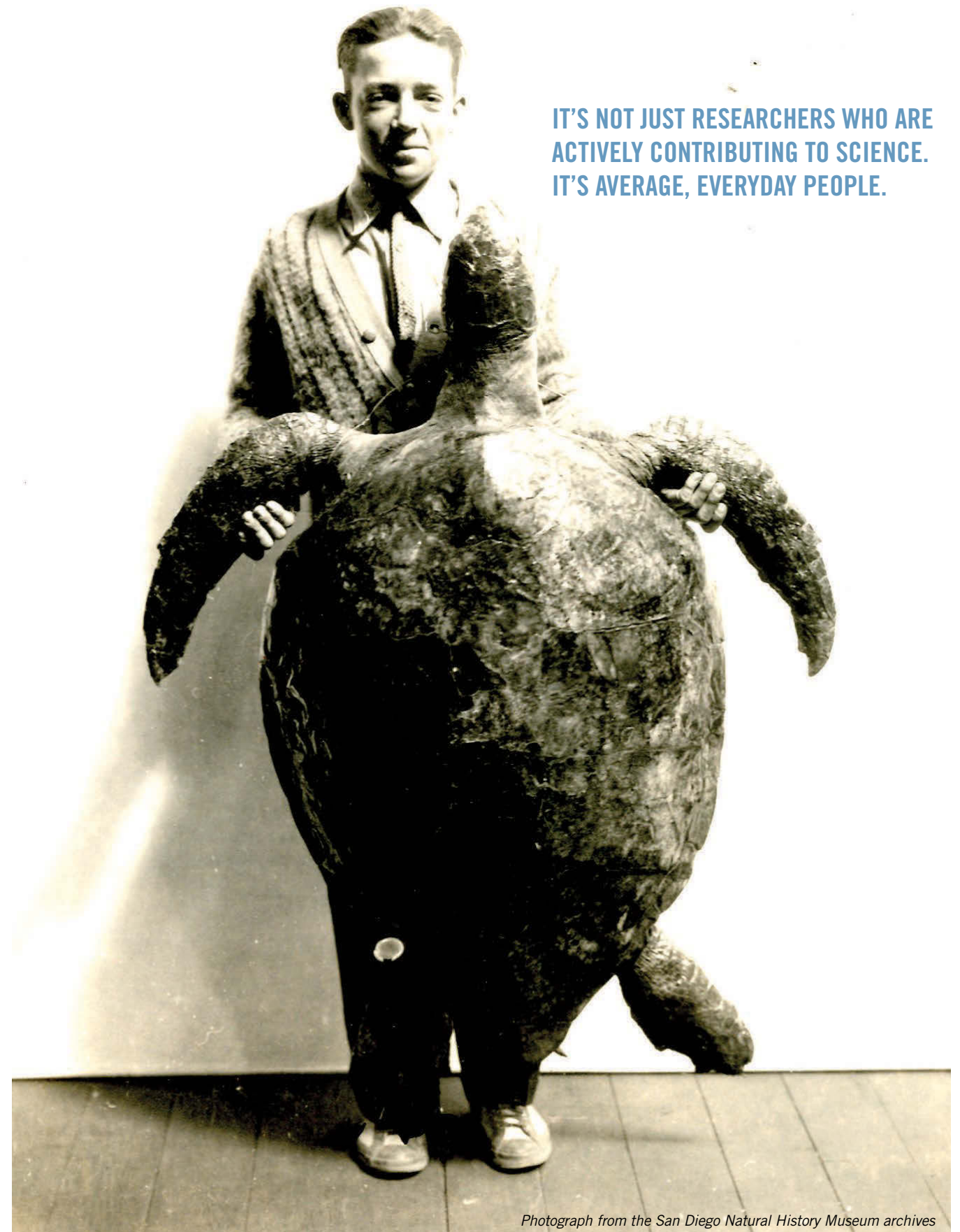
As we look to the future, the Museum is working on several major projects that involve and pay homage to the citizen scientist.

In 2015, the San Diego Natural History Museum will open a brand new exhibition that will celebrate the citizen naturalist's contribution to the larger body of scientific knowledge. Occupying 2,400 square feet in the Museum's 7,300-square-foot Research Library, *Extraordinary Ideas from Ordinary People: A History of Citizen Science* will feature a rotating selection of approximately 75 objects and images drawn from the Library's exceptional collection of rare books, works of art, photographs, maps, and historical documents alongside new interactive media. On view to the public, these objects will challenge the myth of the isolated, lab-coated scientist possessing the keys to nature's secrets. *Extraordinary Ideas* will communicate an inspiring alternative message: that science is a conversation carried forward by curiosity, art, language, imagination, and the drive to look closely and ask questions. And anyone with these tools can contribute.

Thanks to digital media, *Extraordinary Ideas* will be one more place where Museum visitors can create, share, connect, and contribute. Digitization of the Research Library's holdings will allow visitors to engage with selected works in an online format, but it will also allow the Museum to go a step further by creating social or participatory experiences using digital content. This technological component, *NatureSpace*, is being developed through collaboration between the Museum and our partner, the Balboa Park Online Collaborative. *NatureSpace* will serve as the digital chat room where individuals can access research collection information, create a personalized field guide, contribute data, and participate in the conversation.

In a way, these initiatives celebrate and remind us of the founding fathers of the San Diego Society of Natural History, the citizen scientists who came together 140 years ago to establish what is now the second oldest scientific institution in California and the third oldest west of the Mississippi. Just imagine what this group of enthusiastic naturalists could have done with a smartphone and Wi-Fi!

IT'S NOT JUST RESEARCHERS WHO ARE
ACTIVELY CONTRIBUTING TO SCIENCE.
IT'S AVERAGE, EVERYDAY PEOPLE.



Photograph from the San Diego Natural History Museum archives

CITIZEN SCIENCE AND THE BIODIVERSITY RESEARCH CENTER OF THE CALIFORNIAS: It takes a Village

If you Google the term “citizen science” today, you will get an overwhelming number of hits. Citizen science, crowd-sourced science, and citizen naturalists are all current “buzz terms” that have penetrated our culture, whether from the pages of *Scientific American*, the academic halls of universities, or online sites too numerous to list. But what does citizen science really mean? An essential element is the concept of scientific research conducted, in whole or in part, by amateur or avocational scientists. This research might take the form of data collection, data analysis, observations, or other activities. People who participate include retired teachers, 20-something gamers, and children. All that is required is an interest, an ability to follow directions, and access to the project itself, whether in person or through an electronic gadget such as a computer, smartphone, or tablet.

Here at the San Diego Natural History Museum, our foundation rests squarely on the premise of citizen science. Our founding members from the 1870s believed passionately in contributing to science, whether they might be lawyers such as Daniel Cleveland, railroad surveyors like Oliver Sanford, or publishers like Charles Orcutt. None of these people were educated as biologists and yet their names are prominent among the 7.4 million specimens in our research collections. Cleveland collected scores of native plants, and his specimens from the 1800s are some of the earliest records in our herbarium. Sanford, surveyor by day, studied beetles by night. Orcutt, also known as the “Cactus Man,” collected plants, fossils, and shells in California and Baja California, as well as the oldest specimen in our herpetology collection. Women were active citizen scientists during our history as well. Rosa Smith Eigenmann, early librarian and recording secretary for the San Diego Society of Natural History, discovered a new species of fish in the Point Loma tide pools. Kate Stephens, with her husband Frank, traveled throughout San Diego and Baja California, collecting mammal and bird specimens to bring back to the Museum. Anyone who really loved the outdoors and learning about the plants and critters who share our unique environment was free to explore, discover, and add to the body of knowledge that was rapidly growing.

Later, the study of plants, animals, and fossils became much more specialized, until gradually the public assumed that one could not make a real contribution to natural history without a formal science education. The very word “scientist” conjured up a cerebral and isolated individual, often possessing a Ph.D., working in a laboratory at a museum or academic institution, with little or no contact with ordinary people. Sadly, the so-called Ivory Tower, the development of an arcane vocabulary, and other

trends worked to separate the average person from understanding and participating in other kinds of research as well. This represented not only a loss to science, but a personal loss, since it is in interaction with their local environment that most people come to love and value conserving their own personal place.

Now we have come full-circle. Here in the Biodiversity Research Center of the Californias, it is not a surprise that our first citizen scientist project was the enormously successful San Diego County Bird Atlas. Ornithology is one discipline wherein “amateurs” always have held a strong role; the famous Christmas Bird Counts, which depend on an army of avocational birders accumulating huge amounts of data, started in 1900. Our Bird Atlas started in 1997 and was completed in 2002, with the final number of records at a whopping 389,574 observations. Over 400 citizen scientists were absolutely critical for this project, and 211 of these volunteers contributed more than 100 hours each to the Atlas. The *San Diego County Bird Atlas* by Curator



Longtime volunteer Annette Winner mounts a plant specimen in the Museum's Botany Department.

Phil Unitt covers 527 species in 645 pages, and has garnered accolades from professional ornithologists.

Following on this success, the Museum initiated the Plant Atlas, the Mammal Atlas, and the Herpetology Atlas. The Plant Atlas, under the direction of Jon Rebman, Ph.D., curator of botany, has utilized more than 600 trained volunteers since 2003. These volunteers are known as parobotanists after being taught how to collect, press, and identify plants from different parts of our county. The project represents a very time-intensive commitment for them; the top contributor has submitted 5,685 plant specimens. Plant Atlas collections now number 61,705, and within these collections are over 300 new county records, 10 new state records, and two taxa completely new to science! Data like this show the importance of our biodiverse region.

Since 2001, the Mammal Atlas has compiled and georeferenced more than 30,000 occurrence records in our area based on museum specimens, field data, focused surveys, and reporting of citizen scientists. These locations are available through an interactive map on the Museum's website. When complete, the Atlas will provide an invaluable tool for addressing a wide range of research

and management questions as conservation needs are prioritized.

The Herpetology Atlas has partnered with the Natural History Museum of Los Angeles County and launched a citizen science project called Reptiles and Amphibians of Southern California (RASCals) using iNaturalist as the platform. There are 681 records covering 120 taxa observed, with participants currently at 88. Providing collections data online is part of the Atlas; 11 volunteers are helping with digital photography of the herpetology collections.

From a broad perspective, we can see how citizen scientists have played a vital role in the growth of a voluminous body of data on our geographical area. The density of information we have gathered, and continue to gather, regarding the plants, birds, mammals, insects, arachnids, fossils, reptiles, and amphibians for this immensely biologically diverse place we call home, is truly staggering. It started back in the 1800s. But it is progressing by leaps and bounds today as we embrace the use of digital technology to connect our museum collections and curators with local citizens, bringing them together in an ongoing labor of love to fully investigate what exists here and must be protected here, for generations to come.



Herpetology volunteer Sylvester Martinez photographing a lizard for iNaturalist, as a part of the citizen scientist project “RASCals.”

SCIENTIFIC PUBLICATIONS

Adamski, D., J.R. Makinson, B. Brown, S. Wright, P.D. Pratt and J.W. Brown. 2013. Two species of Gelechioidea (Lepidoptera) from southeast Asia associated with downy rose myrtle, *Rhodomyrtus tomentosa* (Myrtaceae). *Journal of the Lepidopterists' Society*: 111-127.

Appeltans, W., A. Berta, et al. 2012. The magnitude of global marine species diversity. *Current Biology* 23(4):2189-2202.

Archibald, J.D. and Averianov, A.O. 2012. Phylogenetic analysis, taxonomic revision, and dental ontogeny of the Cretaceous Zhelestidae (Mammalia: Eutheria). *Zoological Journal of the Linnean Society* 164:361-426.

Archibald, J.D. 2012. Darwin's two competing phylogenetic trees: marsupials as ancestors or sister taxa? *Archives of Natural History* 39:217-233.

Archibald, J.D. 2012. Dinosaur Extinction: Past and Present Perceptions. In Brett-Surman, M. K., Holtz, T. R., Farlow, J. O., and Walter, B, eds. Encyclopedia of Life Sciences. *The Complete Dinosaur*, Second Edition. Bloomington: Indiana Press, pp. 1027-1038.

Archibald, J.D. 2012. Eutheria (Placental Mammals). In *Encyclopedia of Life Sciences*. London, Macmillan Publishers Ltd, Nature Publishing Group, www.elsnet, p. 1-4.

Archibald, J.D. 2013. New material and reinterpretation of the Late Cretaceous eutherian mammal *Paranycetoides* from Uzbekistan. *Acta Palaeontologica Polonica*. 58:17-23.

Barendregt, A. and C.W. Swarth. 2013. Freshwater tidal wetlands: variation and changes. *Estuaries and Coasts* 36:445-456.

Barroso, C., T.W. Cranford and A. Berta (2012). Shape analysis of odontocete mandibles: functional and evolutionary implications. *Journal of Morphology* 273:1021-1030.

Blankers, T., T.M. Townsend, K. Pepe, T.W. Reeder, and J.J. Wiens. 2013. Contrasting global-scale evolutionary radiations: Phylogeny, diversification, and morphological evolution in the major clades of iguanian lizards. *Biological Journal of the Linnean Society* 108:127-143.

Bisconti, M. 2012. Comparative osteology and phylogenetic relationships of *Miocaperea pulchra*, the first fossil pygmy right whale genus and species (Cetacea, Mysticeti, Neobaenidae). *Zoological Journal of the Linnean Society* 166:876-911.

Bisconti, M., Lambert, O., and Bosselaers, M. 2013. Taxonomic revision of *Isocetus depauwi* (Mammalia, Cetacea, Mysticeti) and the phylogenetic relationships of archaic 'cetothere' mysticetes. *Palaeontology* 56:95-127.

Böhm, M., B.D. Hollingsworth, et al., 2013. The conservation status of the world's reptiles. *Biological Conservation* 157:372-385.

Brown, D.E., K.B. Clark, R. Babb, and G. Harris. 2012. An analysis of masked bobwhite collection locales and habitat characteristics. *Proceedings of the National Quail Symposium* 7:305-328.

Brown, J.W. 2013. A new genus of pine-feeding Cochylina from the western United States and northern Mexico (Lepidoptera: Tortricidae: Euliini). *Zootaxa* 3640: 270-283.

Brown, J.W. 2013. Two new Neotropical species of *Platynota* with comments on *Platynota stultana* Walsingham and *P. xylophaea* (Meyrick) (Lepidoptera: Tortricidae). *Proceedings of the Entomological Society of Washington* 115:128-139.

Brown, J.W., D. Janzen and W. Hallwachs. 2013. A food plant specialist in Sparganothini: A new genus and species from Costa Rica (Lepidoptera: Tortricidae). *ZooKeys* 303: 53-63.

Brown, R.M., S.D. Siler, L.L. Grismer, I. Das, and J.A. McGuire. 2012. Phylogeny and cryptic diversification in Southeast Asian flying geckos. *Molecular Phylogenetics and Evolution* 65(2):351-361.

Bryson, R.W., B.R. Riddle, M.R. Graham, B.T. Smith, and L. Prendini. 2013. As old as the hills: Montane scorpions in southwestern North America reveal an ancient association between biotic diversification and landscape history. *PLoS ONE* 8: e52822.

Bruno, J.F., W.F. Precht, P.S. Vroom, and R.B. Aronson. 2013. Coral reef baselines: How much macroalgae is natural? *PeerJ Preprints*. doi:10.7287/peerj.preprints.19v1

Burns M., M. Hedin, and J.W. Shultz. 2013. Comparative analyses of reproductive structures in harvestmen (Opiliones) reveal multiple transitions from courtship to precopulatory antagonism. *PLoS ONE* 8(6): e66767. doi:10.1371/journal.pone.0066767.

Campos, E., G. Ruiz-Campos, y J. Delgadillo. 2013. Primer registro del caracol manzano exótico *Pomacea canaliculata* (Lamarck, 1822) (Gasterópoda: Ampullariidae) en México, con datos sobre su propagación en el Bajo Río Colorado. *Revista Mexicana de Biodiversidad* 84(2):671-675.

Carmona-Islas, C., J. Bello-Pineda, R. Carmona y E. Velarde. 2013. Modelo espacial para la detección de sitios potenciales para la alimentación de aves playeras migratorias en el noroeste de México. *Huitzil* 14(1):22-42.

Chester, S. G. B., Sargis, E. J., Szalay, F. S., Archibald, J. D., and Averianov, A. O. 2012. Therian femora from the Late Cretaceous of Uzbekistan. *Acta Palaeontologica Polonica*. 57:53-64.

Christian, C., D. Ainley, M. Bailey, P. Dayton, J. Hocevar, M. LeVine, J. Nikoloyuk, C. Nouvian, E. Velarde, R. Werner, and J. Jacquet. 2013. Questionable stewardship: A review of formal objections to MSC fisheries certifications. *Biological Conservation* 161: 10-17. http://hx.doi.org/10.1016/j.biocon.2013.01.002

Cordero, A., R. Reeves, and C.W. Swarth. 2012. Home-range size, movement, and overwintering of the eastern mud turtle (*Kinosternon subrubrum*) in Maryland's Coastal Plain, USA. *Chelonian Conservation and Biology* 11:121-124.

Cordero, A., M. Quinlan, S. Blackstone, and C.W. Swarth. 2012. *Kinosternum subrubrum* (Eastern Mud Turtle) overwintering. *Herpetological Review* 43:327.

Cunningham, H., C. Davis, C.W. Swarth, and G. Therres. 2012. The Maryland amphibian and reptile atlas: A volunteer-based distributional survey. *International Journal of Zoology* 2012:1-11. doi:10.1155/2012/348653

Delgado, P., P. Hensel, C.W. Swarth, M. Ceroni, and R. Boumans. 2013. Long-term sedimentation patterns in a tidal freshwater marsh: A compound response to hydrologic alteration and sea level rise. *Estuaries and Coasts* 36:585-594.

Delgadillo, J. 2012. Vegetación y flora. En: V. Muñoz, J.L. Castro, C. de Alba, R. Lara L., J. Martínez Z. y R. Millán (eds.) *Sierra de Juárez*. SEMPRA-CECUT, Tijuana, Baja California, México. pp. 156-161

Devitt, T.J., S.E. Cameron Devitt, B.D. Hollingsworth, J.A. McGuire, and C. Moritz. 2013. Montane refugia predict population genetic structure in the Large-blotched Ensatina salamander. *Molecular Ecology* 22(6):1650-1665.

De Gouvenain, C. R., and J. Delgadillo. 2012. Geographical variation in population demography and life history traits of Tecate Cypress (*Hesperocyparis forbesii*) suggest a fire regime gradient across the USA-Mexico border. *Plant Ecology* 21(395):723-733.

D. Rivera, D. Johnson, J. Delgadillo, M.H. Carrillo, C. Obon, R. Krueger, F. Alcaraz, S. Rios, and E. Carreño. 2012. Historical evidence of the Spanish introduction of date palm (*Phoenix dactylifera* L., Arecaceae) into the Americas. *Genetic Resources and Crop Evolution* 2012:1-20.

Ekdale, E. G. 2013. Comparative anatomy of the bony labyrinth (inner ear) of placental mammals. *PLoS ONE* 8(6):e66624.

Ezcurra, E. and E. Mellink. 2012. Desert Ecosystems. In: S. Levin (ed.) *Encyclopedia of Biodiversity*. Elsevier, Oxford, U.K. pp. 457-478.

Ezcurra, E. and M.A. de la Cueva. 2013. El tesoro de la sierra: La Giganta y Guadalupe. *México Desconocido* 435 (May 2013):32-38.

Gallego, K.R., J.M. Lerma, C.G. Echeverri and J.W. Brown. 2012. Description of the early stages of *Eccopsis galapagana* Razowski & Landry (Lepidoptera: Tortricidae), a defoliator of *Prosopis juliflora* (Sw.) DC (Fabaceae) in Colombia. *Journal of the Lepidopterists' Society* 66:156-164.

Gatesy, J., J.H. Geisler, J. Changa, C. Buell, A. Berta, R.W. Meredith, M.S. Springer, and M.R. McGowen 2013. A phylogenetic blueprint for a modern whale. *Molecular Phylogenetics and Evolution* 66(2):479-506.

Goldberg, S. and C. Mahrtdt. 2012. *Bogertophis rosaliae* (Baja California Rat Snake), Reproduction. *Herpetol. Rev.* 43(4):437-438.

Graham, M. R., J. R. Jaeger, L. Prendini, and B. R. Riddle. 2013. Phylogeography of the Arizona hairy scorpion (*Hadrurus arizonensis*) supports a model of biotic assembly in the Mojave Desert and adds a new Pleistocene refugium. *Journal of Biogeography* 40:1298-1312.

Graham, M.R., M.M. Webber, G. Blagoev, N. Ivanova, and V. Fet. 2012. Molecular and morphological evidence support the elevation of *Euscorpis germanus croaticus* Di Caporiacco, 1950 (Scorpiones: Euscorpiidae) to *E. croaticus* stat. nov., a rare species from Croatia. *Revista Ibérica de Aracnologia* 21:41-50.

Graham, M.R., R.F. Ayrey, and R.B. Bryson. 2012. Multivariate methods support the distinction of a new highland *Vaejovis* (Scorpiones: Vaejovidae) from the Sierra de los Ajos, Mexico. *Journal of Arachnology* 40(3):281-290.

Graham, M.R., P. Stoev, N. Akkari, G. Blagoev, and V. Fet. 2012. *Euscorpis sicanus* (Scorpiones: Euscorpiidae) from Tunisia: DNA barcoding confirms ancient disjunctions across the Mediterranean Sea. *Serket* 13(1/2):16-26.

Grismer, L.L., P.L. Wood Jr., and K.K. Lim. 2012. *Cyrtodactylus majulah*, a new species of Bent-toed Gecko (Reptilia: Squamata: Gekkonidae) from Singapore and the Riau Archipelago. *The Raffles Bulletin of Zoology* 60(2):487-499.

Grismer, L.L., P.L. Wood Jr., E.S. Quah, S. Anuar, M.A. Muin, M. Sumontha, N. Ahmad, A.M. Bauer, S. Wangkulangkul, J.L. Grismer, O.S.G. Pauwels. 2012. A phylogeny and taxonomy of the Thai-Malay Peninsula Bent-toed Geckos of the *Cyrtodactylus pulchellus* complex (Squamata: Gekkonidae): combined morphological and molecular analyses with descriptions of seven new species. *Zootaxa* 3520:1-55.

Grismer, L.L., S. Anuar, M.A. Muin, E.S. Quah, and P.L. Wood Jr. 2013. Phylogenetic relationships and description of a new upland species of Bent-toed Gecko (*Cyrtodactylus* Gray, 1827) of the *C. sworderi* complex from northeastern Peninsular Malaysia. *Zootaxa*, 3616(3):239-252.

Hedin, M., J. Starrett, and C. Hayashi. 2013. Crossing the uncrossable: Novel trans-valley biogeographic patterns revealed in the genetic history of low dispersal mygalomorph spiders (Antrodiaetidae, Antrodiaetus) from California. *Molecular Ecology* 22:508-526.

Hedin, M., J. Starrett, S. Akhter, A.L. Schönhofer and J.W. Shultz. 2012. Phylogenomic resolution of Paleozoic divergences in harvestmen (Arachnida, Opiliones) via analysis of next-generation transcriptome data. *PLoS ONE* 7(8): e42888. doi:10.1371/journal.pone.0042888

Hutchins, E. and Renner, N. 2012. Situated and embodied learning in the field, in K.A. Kastens and C.A. Manduca (eds.), *Earth and Mind II: A Synthesis of Research on Thinking and Learning in the Geosciences*, The Geological Society of America, Special paper 486.

Johnson, C.B., E.S. Quah, S. Anuar, M.A. Muin, P.L. Wood, Jr., J.L. Grismer, L.F. Greer, C.K. Onn, N. Ahmad, A.M. Bauer, and L.L. Grismer. 2012. Phylogeography, geographic variation, and taxonomy of the Bent-toed Gecko *Cyrtodactylus quadrivirgatus* Taylor, 1962 from Peninsular Malaysia with the description of a new swamp dwelling species. *Zootaxa*, 3406:39-58.

Keith, R.M. and M. Hedin. 2012. Extreme mitochondrial population subdivision in southern Appalachian paleoendemic spiders (Araneae, Hypochilidae, Hypochilus), with implications for species delimitation. *Journal of Arachnology* 40:167-181.

Kenyon, J., J. Maragos, and P. Vroom. 2012. Monitoring supports establishment of Pacific Islands Marine National Monument. *Proceedings of the XIIth International Coral Reef Symposium*. http://www.icsr2012.com/proceedings/manuscripts/ICRS2012_18F_2.pdf

Král, J. M. Hedin, et al. 2013. Evolution of the karyotype, sex chromosomes, and meiosis in mygalomorph spiders (Araneae: Mygalomorphae). *Biological Journal of the Linnean Society* 109:377-408.

Liwanag, H.E.M., A. Berta, D.P. Costa, M. Aubrey and T.M. Williams. 2012. Morphological and thermal properties of mammalian insulation: The evolution of fur for aquatic living. *Biological Journal of the Linnean Society* 104(4):926-939.

Liwanag, H.E.M., A. Berta, D.P. Costa, S.M. Budge, and T.M. Williams. 2012. Morphological and thermal properties of mammalian insulation: The evolutionary transition to blubber in pinnipeds. *Biological Journal of the Linnean Society* 107(4): 774-787.

López-Medellín, X. 2012. Los manglares del Noroeste árido de México. En: O. Aburto y E. Ezcurra (eds.). *Manglares Mexicanos*. Verde México, CONANP.

López-Medellín, X. and E. Ezcurra. 2012. The productivity of mangroves in northwestern Mexico: a meta-analysis of current data. *Journal of Coastal Conservation*. 16(3):399-403.

Loxton, D., and D.R. Prothero. 2013. *Abominable Science: The Origin of Yeti, Nessie, and Other Cryptids*. Columbia Univ. Press, New York, 430 pp.

MacLeod, N., Archibald, J.D., and Levin, P., eds. 2013. *Grzimek's Animal Life Extinction*. Two volumes. Detroit: Gale Cengage Learning, 964 pp.

Morales, T. and E. Velarde. 2012. Aves. In: CAMYCAR (ed.) *Biodiversidad Marina de la Costa Central de Veracruz*. COVECYT, México. pp. 84-129.

Mulcahy, D.G., B.P. Noonan, T. Moss, T.M. Townsend, T.W. Reeder, J.W. Sites Jr., and J.J. Wiens. Estimating divergence dates and evaluating dating methods using phylogenomics and mitochondrial data in squamate reptiles. *Molecular Phylogenetics and Evolution* 65(3):974-991.

Page-Albins, K.N., P.S. Vroom, R. Hoeke, M.A. Albins, and C.M. Smith. 2012. Patterns in benthic coral reef communities at Pearl and Hermes Atoll along a wave exposure gradient. *Pacific Science* 66:481-496.

Patten, M.A., and B.D. Smith-Patten. 2012. Testing the microclimate hypothesis: Light environment and population trends of Neotropical birds. *Biological Conservation* 155:85-93.

Patten, M.A. 2012. The White Ibis (*Eudocimus albus*) subspecies of South America. *Bulletin of the British Ornithologists' Club* 132:128-132.

Pauwels, O.S.G., M. Sumontha, A. Latinne, L.L. Grismer. 2013. *Cyrtodactylus sanook* (Squamata: Gekkonidae), a new cave-dwelling gecko from Chumphon Province, southern Thailand. *Zootaxa* 3635(3):275-285.

Peinado, M., G. Díaz, J. Delgadillo, F.M. Ocaña-Peinado, M.A. Macías, J.L. Aguirre, and A. Aparicio. 2012. Bioclimate-vegetation interrelations along the Pacific Rim of North America. *American Journal of Plant Sciences* 3:1430-1450.

Peinado, M., G. Díaz, F.M. Ocaña-Peinado, J.L. Aguirre, M.A. Macías, J. Delgadillo, and A. Aparicio. 2013. Statistical measures of fidelity applied to diagnostics in plant sociology. *Modern Applied Science* 7(6):106-120.

Prothero, D.R. 2013. *Reality Check: How Science Deniers Threaten our Future*. Indiana University Press, Bloomington, Indiana, 370 pp.

Prothero, D.R. 2013. *Bringing Fossils to Life: An Introduction to Paleobiology* (3rd ed.). Columbia Univ. Press, New York, 704 pp.

Prothero, D.R. 2012. Cenozoic mammals and climate change: The contrast between coarse-scale versus high-resolution studies explained by species sorting. *Geosciences* 2:24-41.

Prothero, D.R. 2012. How we know global warming is real and human caused. *Skeptical* 17(2):14-22.

Prothero, D.R. 2012. *The Father of Jurassic Park: A review of Charles R. Knight: The artist who saw through time* by Richard Milner. *Skeptical* 17(2):62-63.

Prothero, D.R. 2012. *How the blind watchmaker made eyes: A review of Evolution's Witness: How Eyes Evolved* by Ivan R. Schwab. *Skeptical* 17(4): 4-6.

Prothero, D.R., V. Syverson, K.R. Raymond, M.A. Madan, A. Fragomeni, S. Molina, A. Sutyagina, S. DeSantis, and G.L. Gage. 2012. Stasis in the face of climatic change in late Pleistocene mammals and birds from Rancho La Brea, California. *Quaternary Science Reviews* 56:1-10.

Prothero, D.R. 2012. *A Skeptic's Guide to Global Climate Change*. Skeptic Society, Altadena, California, 28 pp.

Prothero, D.R. 2013. *Rhinoceros Giants: The paleobiology of Indricotheres*. Indiana University Press, Bloomington, Indiana, 141 pp.

Prothero, D.R. 2012. From memorization to inspiration: Teaching paleobiology in the 21st century, in *Teaching Paleontology at the Undergraduate Level*, Lockwood, R., and Yacobucci, M., eds., *Paleontological Society Special Publication*, pp. 1-10.

Prothero, D.R. and J. Grenader. 2012. A new primitive species of the flat-headed peccary *Platygonus* (Mammalia: Tayassuidae) from the late Miocene-Pliocene of the High Plains. *Journal of Paleontology* 86:1021-1031.

Prothero, D.R. and A. Pollen, 2013. New late Miocene peccaries from California and Nebraska. *Kirtlandia* 58:42-43.

Prothero, D.R. and H. Sheets. 2012. Fossil peccaries (Mammalia: Tayassuidae) from the Pipe Creek Sinkhole (latest Miocene-Pliocene), Indiana. *Kirtlandia* 58:54-60.

Prothero, D.R. 2013. Perissodactyla, in Kingdon, J., ed., *Mammals of Africa*. University of California Press, Berkeley, CA, pp. 408-409.

Prothero, D.R. 2013. Cracked earth and crackpot ideas. *Skeptic* 18(1):20-23.

Prothero, D.R. 2013. *A gentle journey through the truth in rocks: A review of The Rocks Don't Lie* by David Montgomery. *Skeptic* 18(1):56-57.

Prothero, D.R. 2013. *Foundation of a founder of evo-devo: A review of Once We All Had Gills* by Rudolf A. Raff. *Skeptic* 18(1):63-64.

Prothero, D.R., B.L. Beatty, and R.M. Stucky. 2013. *Simojovelhyus* is a peccary, not a heloyid (Mammalia, Artiodactyla). *Journal of Paleontology* 87:930-933.

Prothero, D.R. 2013. Magnetic myths: why magnets and magnetic fields attract New Age flimflam and flapdoodle. *Skeptic* 18(2):10-11.

Racicot, R. and A. Berta 2013. Comparative morphology of true porpoise (Cetacea: Phocoenidae) pterygoid sinuses: phylogenetic and functional implications. *Journal of Morphology* 274(1):49-62.

Regier, J.C., C. Mitter, A. Zwick, A.L. Bazinet, M.P. Cummings, A. Kawahara, J.C. Sohn, J. D. Zwickl, S. Cho, D.R. Davis, J. Baixeras, J. Brown, C. Parr, S. Weller and D. Lees. 2013. A large-scale, higher-level, molecular phylogenetic study of the insect order Lepidoptera (moths and butterflies). *PLoSOne* 8(3): e58568. doi:10.1371/journal.pone.0058568 (23 pages).

Rebman, J. and N. Roberts. 2012. *Baja California Plant Field Guide*, Third edition, San Diego Natural History Museum Publication. 451 pp.

Renner, N. 2012. Embracing the physical in museums, a review of museum materialities: objects, engagements, interpretations. In *Mind, Culture and Activity: An International Journal*.

Richart, C.H. and M. Hedin. 2013. Three new species in the harvestmen genus *Acuclavella* (Opiliones, Dyspnoi, Ischyropsalidoidea), including description of male *Acuclavella quattuor* (Shear 1986). *Zookeys* 311:19-68.

Rightmyer, M. G., T. Griswold, and S. G. Brady. 2013. Phylogeny and systematics of the bee genus *Osmia* (Hymenoptera: Megachilidae) with emphasis on North American Melanosmia: Subgenera, synonymies, and nesting biology revisited. *Systematic Entomology* 38(3):561-576.

Rocca, M. and J.W. Brown. 2013. New host records for four species of tortricid moths (Lepidoptera: Tortricidae) on cultivated blueberries, *Vaccinium corymbosum* (Ericaceae), in Argentina. *Proceedings of the Entomological Society of Washington* 115:167-172.

Sasson, A. 2012. The faunal Remains from La Floresta site (Orange County, CA). San Diego: Report on File at SWCA.

Sasson, A. 2012. Faunal remains from Rhodes Crossing site (CA-SDI-13078). Carlsbad, CA: Report on File at ASM Affiliates.

Sasson, A. 2013. The faunal remains from the Iron Age levels, in Megiddo V: the 2004-2008 seasons. Edited by I. Finkelstein, D. Ussishkin, and E. Cline, pp. 1131-209. Winona Lake, Indiana: Institute of Archaeology of Tel-Aviv University.

Schils, T., P.S. Vroom, and A. D. Tribollet. 2013. Geographical partitioning of marine macrophyte assemblages in the tropical Pacific: A result of local and regional diversity processes. *Journal of Biogeography* 40:1266-1277.

Schönhofer, A.L., M. McCormack, N. Tsurusaki, J.Martens, and M.Hedin. 2013. Molecular phylogeny of the harvestmen genus *Sabacon* (Arachnida: Opiliones: Dyspnoi) reveals multiple Eocene-Oligocene intercontinental dispersal events in the Holarctic. *Molecular Phylogenetics and Evolution* 66:303-315.

Simpson, M.G. and J.P. Rebman. 2013. A new species of *Cryptantha* (Boraginaceae) from the Sierra de San Pedro Mártir, Baja California, Mexico. *Madroño* 60(1):35-45.

Simpson, M.G., J.P. Rebman, K.E. Hasenstab-Lehman, C.M. Williams, and P. McConnell. 2013. *Cryptantha wigginsii* (Boraginaceae): A presumed extinct species rediscovered. *Madroño* 60(1):24-34.

Soto-Centeno, J.A., L.N. Barrow, J.M. Allen, and D.L. Reed. 2013. Re-evaluation of a classic phylogeographic barrier: New techniques reveal the influence of microgeographic climate variation on population divergence. *Ecology and Evolution* 3(6):1603-1613.

Spencer, W.D. 2012. Home ranges and the value of spatial information. *Journal of Mammalogy* 93(4):929-947.

Starrett, J. M. Hedin, N. Ayoub and C.Y. Hayashi. 2013. Hemocyanin gene family evolution in spiders (Araneae), with implications for phylogenetic relationships and divergence times in the infraorder Mygalomorphae. *Gene* 524 (2):175-186.

Sumontha, M., O.S. Pauwels, K. Kunya, A. Nitikul, P. Samphanthamit, and L.L. Grismer. 2012. A new forest-dwelling gecko from Phuket Island, Southern Thailand, related to *Cyrtodactylus macrotuberculatus* (Squamata: Gekkonidae). *Zootaxa* 3522:61-72.

Swarth, C.W., P. Delgado, and D. Whigham. 2013. Vegetation dynamics in a tidal freshwater wetland: A long-term study at differing scales. *Estuaries and Coasts* 36:559-574.

Trasviña Castro, A., O. Aburto-Oropeza, E. Ezcurra, and O. Zaytsev. 2013. Observaciones de corrientes en el Parque Nacional de Cabo Pulmo, Baja California Sur: mediciones Eulerianas en verano, otoño e inicios del invierno. *GEOS* 32(2): 1-20.

Unitt, P. 2012. Classification of the House Finch of the Channel Islands, southern California. *Western Birds* 43:266-270.

Unitt, P. and L. Hargrove. 2013. The Gray Vireo: Vanishing but not listed. *San Diego Audubon Sketches* 64(8):2-3.

Vandergast, A.G., R.D. Inman, K.R. Barr, K.E. Nussear, T.C. Esque, S.A. Hathaway, D.A. Wood, P.A. Medica, J.B. Breinholt, C. L. Stephen, A.D. Gottscho, S.B. Marks, W.B. Jennings, and R.N. Fisher. 2013. Evolutionary hotspots in the Mojave Desert. *Diversity* 5:293-319.

Velarde, E., E. Ezcurra, and D.W. Anderson. 2013. Seabird diets provide early warning of sardine fishery declines in the Gulf of California. *Scientific Reports* 3:1332, DOI: 10.1038/srep01332. <http://www.nature.com/srep/2013/130225/srep01332/full/srep01332.html>

Wang, Y.Y., J.H. Yang, and L.L. Grismer. 2013. A new species of *Goniurosaurus* (Squamata: Eublepharidae) from Libo, Guizhou Province, China. *Herpetologica* 69(2):214-226.

Wehncke, E.V., X. López-Medellín, M.Wall, and E. Ezcurra. 2013. Revealing an endemic herbivore-palm interaction in remote desert oases of Baja California. *American Journal of Plant Sciences* 4 (2A): 470-478. doi: 10.4236/ajps.2013.42A060.

Wehncke, E.V., J. Rebman, X. López-Medellín, and E. Ezcurra. 2012. Sierra de La Libertad: A major transition between two desert regions in Baja California, Mexico. *Botanical Sciences* 90 (3):239-261.

Wehncke, E. and X. López-Medellín. 2012. Blue fan palm oasis and sustainability: Developing initial anticipated knowledge on a key desert geographic area of Northern Baja California. Integrated Water Resources Management and Challenges of the sustainable development. Second International Conference. Agadir. Marruecos 24-26 de Marzo 2010. UNESCO-International Hydrological Programme. 327-341.

Wiens, J.J., C.R. Hutter, D.G. Mulcahy, B.P. Noonan, T.M. Townsend, J.W. Sites Jr., and T.W. Reeder. Resolving the phylogeny of lizards and snakes (Squamata) with extensive sampling of genes and species. *Biology Letters* 8(6):1043-1046.

Wood, D.A., A.G. Vandergast, K.R. Barr, R.D. Inman, T.C. Esque, K.E. Nussear, and R.N.Fisher. 2013. Comparative phylogeography reveals deep lineages and regional evolutionary hotspots in the Mojave and Sonoran Deserts. *Diversity and Distributions* 19:722-737.

Yan, J., C. Tian, J. Zhou, A.M. Bauer, L.L. Grismer, and K. Zhou. 2013. Complete mitochondrial genome of the Tioman Island rock gecko, *Cnemaspis limi* (Sauria, Gekkota, Gekkonidae). *Mitochondrial DNA* 1-2.

Bold indicates Museum staff members.
Underline indicates Museum research associates.

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VOLUNTEERS

Most of the fundamental ideas of science are essentially simple, and may, as a rule, be expressed in a language comprehensible to everyone. — Albert Einstein

There are many reasons why a person volunteers, and for volunteers at the San Diego Natural History Museum, a passion for nature and science is at the top of the list. Not only do they want to learn about nature but they also want to take that knowledge and distill it into tasty nuggets for others. Watch one of the Museum’s outreach volunteers in action and you can’t help but want to learn more about their area of interest. Their enthusiasm is infectious and together they reach over 37,000 people every year who go on to share their experiences with friends and families.

Outreach volunteers include Museum Whalers, trained naturalists who provide interpretation on whale-watching cruises; Canyoneers who lead free public nature walks; and Docents, trained teaching guides who work in the Museum with live animals and interpretative carts as well as delivering programs to school groups in the community. Each group provides unique opportunities to connect people with nature while at the same time expanding the volunteers’ knowledge of natural history.

Training is tailored for each group, and an integral part of the process is hearing directly from scientists and other local experts. This contact with the scientists adds depth to the training not gained by just reading or researching on their own. And the scientists view this as an opportunity to spread their knowledge, looking for a multiplier effect when the volunteer takes what they have learned and shares with others.

In the volunteers’ efforts, stories play a critical role and so do props. Every Canyoneer guide has a bag of tricks: pictures, owl pellets, acorns, magnets, and even horehound candy and it’s not enough for them to point out mistletoe; it’s important to talk about the connection with the birds that spread its seeds. Docents use interpretative carts and mounted specimens with items a child or visitor can touch and feel and they often choose topics such as metamorphosis to explore the wonders of nature. Museum Whalers use whale vertebrae and baleen to illustrate the size and feeding behavior of the whales they love. All the volunteers have the same motivation—to see the light in a child’s eye or the “wow” on an adult’s face when they connect with the subject matter.

Many of the outreach volunteers seek opportunities within the research departments to do even more. They find satisfaction in contributing to a scientific body of knowledge. Science is in the details, and these citizen scientists know that even the most mundane tasks are

important. Sorting insects, numbering bones, preparing fossils, tagging specimens, or shelving books make a difference in maintaining the Museum’s collections. These volunteers know their help is critical for the research departments.

A love of nature and learning is what brings volunteers to the Museum, but feeling they are part of something bigger is what keeps them coming back.

VOLUNTEERS BY THE NUMBERS

TOTAL VOLUNTEER HOURS
51,451

TOTAL VOLUNTEERS
754

DOLLAR VALUE OF VOLUNTEER HOURS
\$1,273,412

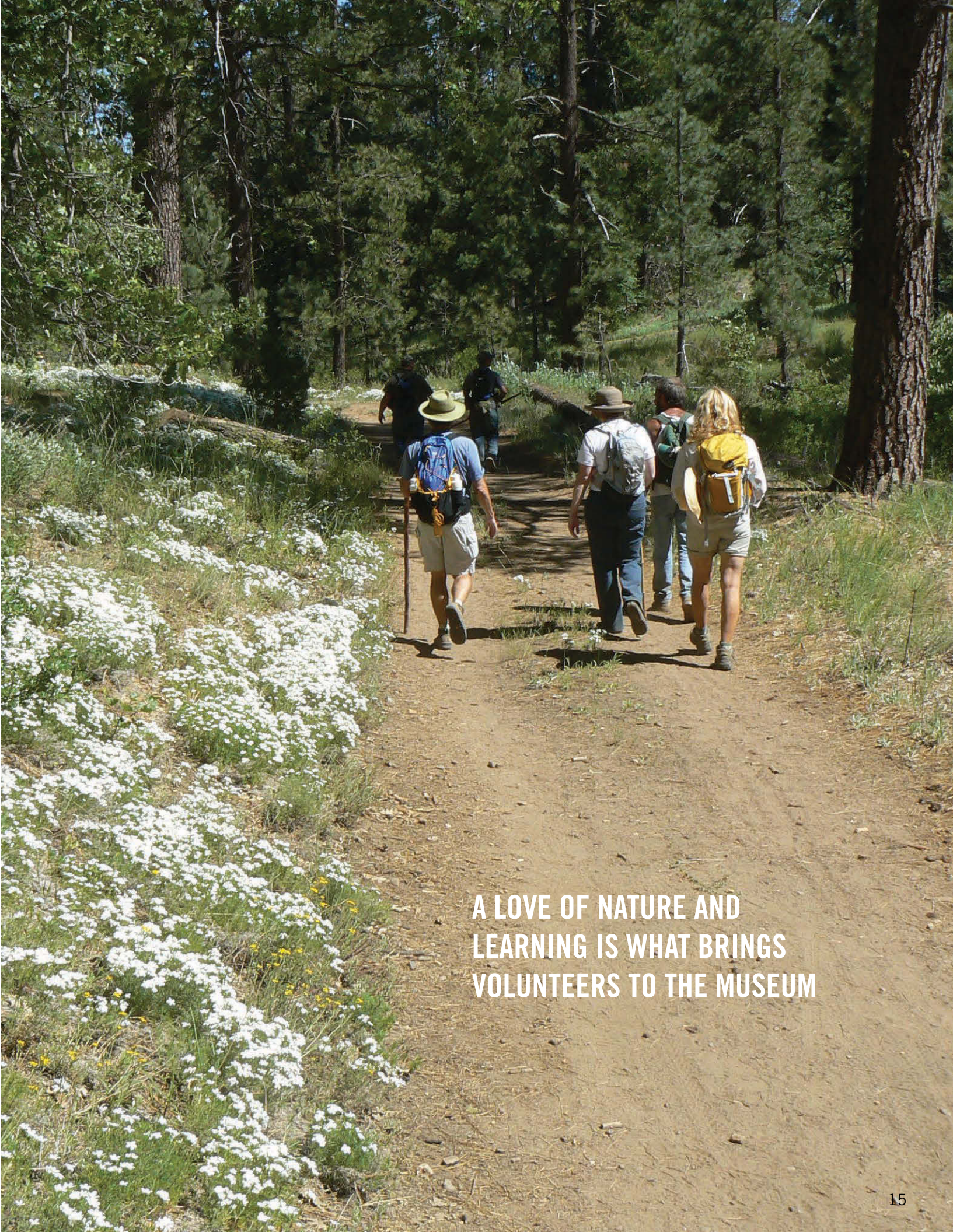
RESEARCH AND COLLECTIONS VOLUNTEER HOURS
21,020

BOARD OF DIRECTORS HOURS
1,218

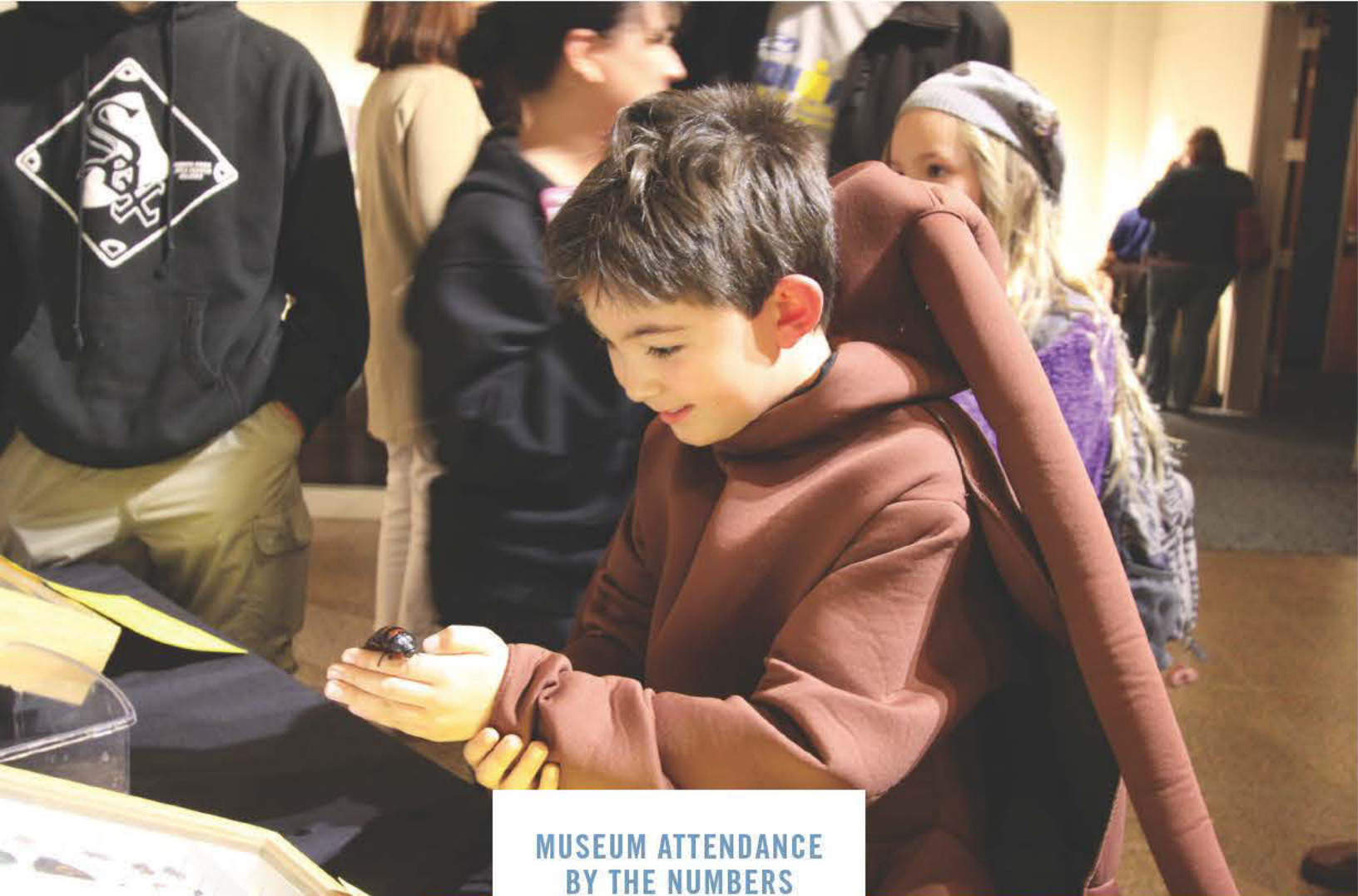
CANYONEERS LED 96 HIKES FOR 1,910 PEOPLE, INCLUDING 14 HIKES FOR 366 CHILDREN AND CHAPERONES.

DOCENTS REACHED 4,549 STUDENTS AND CHAPERONES IN 108 CLASSES.

MUSEUM WHALERS REACHED 31,154 PASSENGERS ON 295 CRUISES THROUGH HORNBLOWER CRUISES AND EVENTS, AND H&M LANDING.



A LOVE OF NATURE AND
LEARNING IS WHAT BRINGS
VOLUNTEERS TO THE MUSEUM



MUSEUM ATTENDANCE BY THE NUMBERS

371,286



PUBLIC PROGRAMS AND EXHIBITIONS

Creating memorable experiences is what public programs at the San Diego Natural History Museum are all about. We use many tools in our toolbox to create these experiences, but know it is the personal touch that has the potential to create memories and sometimes even transform lives. We are proud of our past year of public programs and want to share some notable Museum memories.

Inspiring Future Scientists

Many surveys of scientists indicate that the single biggest factor that contributed to them following that career path was the mentorship and interaction with other scientists. At theNAT, we are always looking for ways in which the public can interact with our research staff to inspire the scientists of tomorrow. During *Dr. Entomo's Palace of Exotic Wonders*, we held *Six-Legged Sundays* every weekend with special events for families, including an opportunity to meet some of our research staff. "For some folks we became a weekly tradition this spring," noted Jim Berrian, field entomologist. "I talked to the same kids several weekends in a row." While the *Six-Legged Sundays* series is over, the research departments continue to inspire and mentor through volunteer, internship, and community service opportunities geared towards teens.

Getting a Little Buggy

The carnival-like atmosphere of *Dr. Entomo's Palace of Exotic Wonders* allowed the Museum to get silly this year. Many members came to the exhibition's opening dressed as insects, including Colin Farrar, who came dressed as a cockroach. Kids like Colin and kids-at-heart enjoyed talking to the Museum's research staff and holding living insects. "When I handed Colin a cockroach to hold, it was like I gave him the Holy Grail. He just sat and stared. I was worried he was freaked out," said Michael Wall, curator of entomology. But Colin eventually handed the roach back and said, "I've always wanted to do that."

Memorializing an Icon

Titanic: The Artifact Exhibition was a financial boon for the Museum and created plenty of memories for the public. From the marriage proposal on our front steps on the anniversary of the sail date, to the child who dressed up as "Captain Smith" for summer camp, members and guests found myriad ways to memorialize this cultural icon. Former Director of Visitor Services Elizabeth Sayles was particularly struck by how guests responded to the passenger manifest memorial wall. "The centennial day alone was one big

memory. I was amazed at the number of people who came in wanting to know about their family ancestors and where they were on the manifest," remarked Elizabeth. The Museum was honored to bring this exhibition to the people of San Diego during the centennial anniversary of its fateful journey.

Summer Camp

Summer camps are always a joy for campers, parents, and staff. Some campers simply couldn't get enough, according to camp instructor Calandra Crane. "I had two pre-K campers, Alex and Lucas, in every pre-K topic we do and they loved them all." Alex and Lucas' mom told camp instructors that they spent afternoons at home hunting mammoths in their backyard. In fact, the boys have developed such an interest in paleontology that they are planning their upcoming vacation around visiting other museums in southern California. We sense some future scientists on our hands!

Taking It to the Streets

The *Nature to You Loan Program* lets teachers and members of the public borrow from over 1,300 specimens. At Solana Pacific Elementary School, students, teachers, and parents love the program. According to science instructor Jerry Wasserman, "I have been borrowing specimens from theNAT's loan library for over eight years. The students are enthralled with the specimens that prowl, roost, inhabit, or settle in their media center." Last year several students noticed that some specimen cases had plaques that recognize specific donors who provided money for that display. That got the students' gears turning, and a few months later the student council presented the Loan Library with \$307 in small bills and change to use toward re-casing a critter. Later that year, the Museum recognized the school's philanthropy by sending one of our researchers to give a special presentation to the students about insects.

Memory-Making on Mission

Research in conservation psychology indicates that the best predictor of a strong conservation ethic is the "sense of place" or attachment that people have for an area. As a large portion of our mission is, "... to inspire in all a respect for nature and the environment," we are vested in creating the "sticky" memories that help visitors develop a sense of place for our region and our Museum. The examples above are just a few of the ways that we think we successfully created "sticky" memories through our exhibitions, family programs, internships, camps, and outreach programs. Our ultimate goal is to make every visit to the Museum a memorable one, so look forward to future years of excellence and innovation in the Museum's public programs!

Opposite top: Young Museum member at the opening of Dr. Entomo's Palace of Exotic Wonders. Bottom: Family enjoying Trash to Treasure Family Day at the Museum.

ENVIRONMENTAL SCIENCE EDUCATION CENTER

In 1991, an organization was born in response to a pressing community need. **PROBEA**, the acronym for **Proyecto Bio-regional de Educación Ambiental** or **Bioregional Environmental Education Project**, has helped tens of thousands of people over the past 20 years become active stewards of the environment. This program has simultaneously transformed how environmental education is delivered while building partnerships and innovative practices that enable people living in border communities to become environmentally active citizens.

In 1986, Mexico passed legislation mandating the teaching of environmental education in schools, but no institutional mechanisms were put in place for schools to address this

mandate. A void was filled with the birth of PROBEA, a program that was operated independently for six years before joining with the San Diego Natural History Museum in 1997.

PROBEA is a continuing education program for educators in Baja California and Baja California Sur. Through a “train the trainer” approach, Museum staff along with counterparts in Mexico work together to teach educators how to incorporate environmental science into their own classrooms and curriculum. PROBEA’s strategy to train teachers and develop place-based and watershed-focused curricula has helped create awareness and new behaviors. As a result, more than 4,800 educators have received training in the teaching of environmental education, benefiting more than 180,000 students.

Over the past three years, PROBEA’s new program, *Smart Schools: Green Practices in the Peninsula of Baja California*, has offered a well-defined step-by-step process for schools to progress from environmental awareness and knowledge to environmental action, thereby creating sustainable, environmentally friendly changes in the day-to-day running of the school. Because the Smart Schools program mandates the participation of the entire school community, schools saved water and energy, learned how to more effectively manage their trash, inspired the creation of community gardens, and fostered youth leadership.

Through PROBEA, the San Diego Natural History Museum has created a new generation of environmental stewards and a model for schools and communities. Students and teachers who participate gain a transformed worldview, seeing themselves as part of the ecosystem rather than apart from the environment.

“I’m interested in participating in the Smart School program because for me, taking care of the environment and protecting it is very important. I love plants and animals and I love my planet. Ecology, the environment, and recycling are my passion, and I would like to show all my school mates how important it is to work as a team to have a better school and then a much better planet. “
—Blanca Paola Ceja Solair- Student, Plantel Tecate

ENVIRONMENTAL SCIENCE EDUCATION CENTER BY THE NUMBERS

SAN DIEGO PROGRAMS

NATURE TO YOU LOAN LIBRARY
84,781 PARTICIPANTS

SCHOOL PROGRAMS
30,911 STUDENTS AND CHAPERONES

FAMILY AND PUBLIC PROGRAMS
20,963 PARTICIPANTS

MUSEUM ACCESS FUNDS
8,068 TITLE 1 STUDENTS SERVED

PROBEA

*Proyecto Bio-Regional De Educación Ambiental
Bio-Regional Environment Education Project*

BAJA CALIFORNIA PROGRAMS

NUMBER OF TEACHERS TRAINED: 269
NUMBER OF STUDENTS SERVED: 27,669

SMART SCHOOL, GREEN PRACTICES PROGRAM
NUMBER OF TEACHERS TRAINED: 78
NUMBER OF STUDENTS SERVED: 271



Quantum Learning graduates, January 2013, La Paz, BCS

Cecyte Rio students from our Smart School Program preparing the ground for a native plant garden



Quantum Learning activity: How the brain functions

FINANCIALS

The Museum is pleased to report a successful fiscal year where we recorded another year with a positive surplus. One of our most significant accomplishments was addressing the long-term debt carried by the Museum. The majority of the debt is related to the construction of the new building which added over 90,000 square feet to the Museum in 2000. In total, this debt was \$13.4 million and carried annual debt service of \$1.4 million. Our Executive Team identified a new lender, First Republic Bank, who agreed to refinance all of our debt at much more favorable market rates. Thanks to this wonderful new partnership with First Republic, we closed the new financing in the summer of 2012 and reduced our annual debt cost by nearly \$600,000.

New covenants associated with the refinance have served to focus the Museum on building working capital to \$4.2 million over the next four years. A second bank covenant is a debt coverage ratio and serves to focus the Museum on diversifying its earned income, leveraging existing revenue sources, and continuing to operate in a fiscally conservative way. As shown below, we have made considerable progress in improving our liquidity and profitability. As of June 30, 2013 we had \$2.8 million in operating cash, an increase of \$2.4 million since 2011.

Another major contributor to our improved financial condition was the Museum’s hosting of the traveling exhibition; *Titanic: The Artifact Exhibition*. This exhibition ran from February-September 2012, positively impacting two fiscal years. Another positive trend has been the growth of our Biological and Paleo Services contract revenue. This is a unique way our research division has leveraged their scientific knowledge into a revenue source which serves to underwrite other research and provides valuable opportunities to add specimens to our collection.

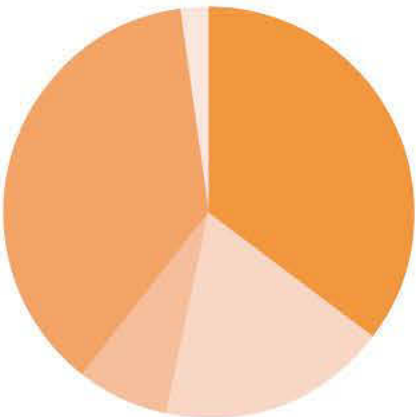
Our greatest asset has been our devoted staff. We are very pleased as a result of the improvement of our financial condition to be able to restore all of the salary reductions required in 2008. Standing firmly as a stronger and healthier organization we have embraced a culture which seeks to be agile in a changing environment and utilize metrics to uncover opportunities, both of which provide us enhanced abilities to serve our community.

Susan Loveall
CFO, COO, VP

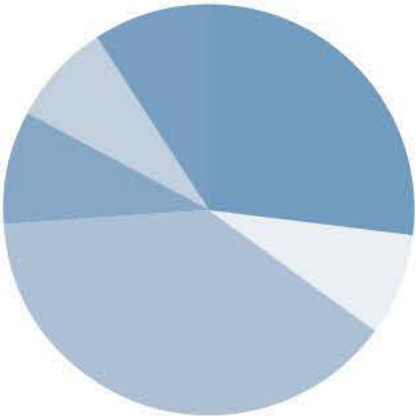
FINANCIAL POSITION

	2013	2012
Assets		
Cash	\$ 2,843,730	\$ 1,798,987
Investments and perpetual trusts	\$ 11,803,334	\$ 11,689,337
Receivables and prepaid expenses	\$ 2,758,310	\$ 2,857,546
Property, equipment (less accumulated depreciation)	\$ 22,595,863	\$ 24,154,275
Total Assets	\$ 40,001,237	\$ 40,500,145
Liabilities		
Accounts payable and accrued expenses	\$ 1,883,563	\$ 2,313,199
Other short-term liabilities	\$ 628,056	\$ 289,669
Notes payable	\$ 12,613,893	\$ 13,425,495
Total Liabilities	\$ 15,125,512	\$ 16,028,363
Net Assets		
Unrestricted	\$ 10,313,641	\$ 11,283,129
Temporarily restricted	\$ 2,970,552	\$ 1,903,187
Permanently restricted	\$ 11,591,532	\$ 11,285,466
Total Net Assets	\$ 24,875,725	\$ 24,471,782
Total Liabilities and Net Assets	\$ 40,001,237	\$ 40,500,145

2012-2013 AUDITED FINANCIALS



Revenue	
Admissions and other operating income	35%
Bio and Paleo Services contracts	18%
Endowment/investment income	7%
Contributions	37%
Other support	2%



Expenses	
Collections and research	27%
Education	8%
Exhibits	39%
Fundraising/membership	9%
Communications/marketing	8%
General administrative	9%

OPERATING REVENUE AND EXPENSES

	Fiscal Year 2013		Fiscal Year 2012	
Revenue and Support				
Admissions and other operating income	\$ 4,048,208	35%	\$ 5,540,812	43%
Bio and Paleo Services contracts	\$ 2,097,499	18%	\$ 1,871,486	15%
Endowment/investment income	\$ 767,542	7%	\$ 317,372	2%
Contributions	\$ 4,280,195	37%	\$ 4,686,966	37%
Other support	\$ 251,596	2%	\$ 395,219	3%
Total Revenue and Support	\$ 11,445,040	100%	\$ 12,811,855	100%
Expenses				
Collections and research	\$ 3,030,778	27%	\$ 2,714,383	21%
Education	\$ 938,657	8%	\$ 1,200,068	9%
Exhibits	\$ 4,337,840	39%	\$ 4,583,346	36%
Fundraising/membership	\$ 998,716	9%	\$ 1,002,609	8%
Communications/marketing	\$ 839,777	8%	\$ 842,487	7%
General administrative	\$ 960,553	9%	\$ 864,796	7%
Total Expenses	\$ 11,106,321	100%	\$ 11,207,689	100%
Excess of Operating Revenue & Support Over Expenses	\$ 338,719		\$ 1,604,166	

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FULFILLING THE VISION

Twenty-two years ago the Museum came under the leadership of a new executive director, Michael Hager, and engaged in a comprehensive strategic planning process which brought the institution back to its core strengths: a focus on the natural history and evolution of southern California and Baja California. This region is defined by its geography and the resulting biodiversity, and is now recognized as one of just 25 global biodiversity hot spots.

To better tell this story, the Museum initiated an ambitious fundraising campaign to renovate and expand the existing building. The resulting *Full Circle Campaign* added 90,000 square feet to the facility and created galleries and halls designed to hold exhibitions focused on this unique region.

The goal has always been to give visitors a true sense of place: from the geologic and paleontological past to the biological present and how they both inform the future. Another successful campaign was completed in 2006 that allowed the Museum to tell the first half of the story, through the *Fossil Mysteries* exhibition. This exhibition showcases the rich fossil history of our region and invites visitors to explore the prehistory of southern California and Baja California, Mexico.

Now, launched by a grant through California State Parks as part of the Proposition 84 Water Bond of 2006, and supplemented by generous private support, the Museum is poised to complete the biological complement to *Fossil Mysteries*. *Coast to Cactus in Southern California* will take visitors on a journey of our rare and diverse habitats from the ocean shore to the deserts, just 90 miles away. *Coast to Cactus* will premier as the Museum’s centerpiece to the Balboa Park 2015 Centennial celebration and, together with *Fossil Mysteries*, will truly position the Museum as a visitor’s center for our region.

In addition, plans are underway to renovate the Research Library with a new exhibition, *Extraordinary Ideas from Ordinary People: A History of Citizen Science*. This space will be accessible to all visitors and a rotating exhibition of our most precious natural history paintings, manuscripts, and books will be on display. Weaving together these exquisite collections is the story of the citizen scientists who were passionate about the natural world and spent their life’s work documenting their observations.

The Board of the Museum approved the 30-month Special Projects Campaign in December 2012, with a goal of \$14.9 million with \$9.6 million already in hand. The Campaign includes planning and implementation funds for both exhibitions as well as bridge funding to sustain operational support. Campaign policies allow for multi-year pledges and permanent recognition opportunities are available to donors at the \$10,000 level and above.

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Saturday, March 9, 2013**

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Museum supporters Jerry and Eleanor Navarra with Supervisor Ron Roberts.

**More than a decade of giving:
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We are grateful to San Diego County Supervisor Ron Roberts (District 4) for a gift to support the new fire suppression system to protect priceless specimens in the Museum's Herpetology Wet Range. The Wet Range houses 73,300 fluid preserved amphibian and reptile specimens, and 3,100 skeletons. These specimens, which have been collected over more than 100 years, are used by scientists to better understand the biodiversity, distribution, and general biology of these creatures over time, and today.

The Museum's stunning collection of 9,300 rattlesnakes is one of the largest in the world, thanks to Mr. Laurence Klauber. While Chairman & CEO of San Diego Gas and Electric, Klauber became the world's foremost expert on rattlesnakes and donated his specimens to the Museum.

This marks just one of many gifts from Supervisor Ron Roberts during the past decade. Other key gifts include digital imaging equipment for our Public Science Demonstration Lab and 3-D nature films in the Museum's Charmaine and Maurice Kaplan Theater, and support for our award-winning public exhibitions as well as the Museum's building expansion in 2000.

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In Memoriam

The following list of individuals represents members, donors, and volunteers who passed away this fiscal year. We are thankful for their commitment to the Museum and wish to honor their memories.

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Cover photo: Citizen scientist F.E. Beck, a San Diegan who in the 1920s found his first trapdoor spider in Balboa Park and later became a trapdoor spider enthusiast. He even kept a homemade nursery for his spiders in his backyard! This photo was taken by another San Diego citizen scientist, Lee Passmore. The image accompanied an article by Mr. Passmore, *California Trapdoor Spider Performs Engineering Marvels*, in the August 1933 issue of *National Geographic*. Many of Lee Passmore's photos, such as this one, were donated to the San Diego Natural History Museum.





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