Chancellor Carol Christ Executive Vice Chancellor and Provost Paul Alivisatos Vice Chancellor and Chief Financial Officer Rosmarie Rae Vice Chancellor for Research Randy Katz

Dear Chancellor Christ, EVCP Alivisatos, VC-CFO Rae, and VCR Katz:

The Berkeley Natural History Museums (BNHM) and Field Stations (FS) are essential to Berkeley's identity as a top-ranked training institution for world-class researchers in the biological and environmental sciences. We, the undersigned 3,100+ graduate students, alumni, and supporters write to express the extent to which these resources are critical to the recruitment, development, and future engagement of Berkeley-trained scientists, scholars, and entrepreneurs.

We wish to convey our extreme disappointment in the proposal to cut the budgets of the BNHM and FS by 20% in real dollars in fiscal year 2019. Though the BNHM and FS currently serve 700+ graduate students and provide specimens and expertise for over 4,000+ undergraduates in formal courses each year, the campus has already cut their campus funding by 50% over the last decade. The radical pace of divestment in Berkeley's unparalleled repositories of natural diversity will eradicate the ability of the museums and field stations to provide basic services to students and visiting scientists, which include the curation of 12+ million specimens and maintenance of thousands of acres for research. A budget cut this severe will remove senior staff positions, thus stripping the BHNM and FS of invaluable and irreplaceable expertise; if these cuts continue, Berkeley's defining resources for the biological and environmental sciences will cease to exist.

The BNHM and FS serve as critical outreach centers which allow UC students to share important ecological, biological, and environmental concepts with the broader community. Berkeley's museums, which lie at the heart of campus, receive visits from elementary and high school students daily, serving as a critical resource for local educators. Berkeley's field stations offer UC students the opportunity to receive hands-on experience in field and conservation biology, and often provide young scientists with their first research experiences. The BNHM and FS are fundamental educational resources that only serve to increase interest in STEM and offer students opportunity to personally connect with pressing environmental issues. More practically, this vast BNHM and FS alumni and supporter network is a critical target for the university's campaign to increase giving to Berkeley; eliminating a key part of these donors' Berkeley experience will likely decrease the efficacy of future solicitation efforts.

We urge the university leadership to prioritize that which makes Berkeley unique. The services provided by the BNHM and FS are unparalleled among U.S. institutions of higher education. No other university has an equivalent network of physical specimens, research preserves, and scientific expertise, and the BNHM and FS played a definitive role in influencing our decision to pursue our undergraduate and graduate degrees at UC Berkeley. We recognize that the campus is currently in the midst of a serious financial crisis, yet the proposed cuts are disproportionately severe, and their impact is devastating. Stripping the BNHM and FS of critical funding will only degrade Berkeley's standing as a premier institution of higher learning and decrease its efficacy as a global leader in training future generations of scientists.

Yours sincerely,

Sara Kahanamoku Doctoral Student, Integrative Biology and Museum of Paleontology

## Testimonials from students, alums, and supporters of the BNHM and FS

The Berkeley museums and field stations are absolutely vital to both the education of its students and for its world-class research. My own experience at Cal would not have been the exceptional quality that it was without access to, and research in, these facilities. Beyond that, natural history museums and field stations are key in understanding biology, preserving the environment of California, preparing for future changes brought by climate change, and revealing patterns crucial to crafting public policy to address the issues above. A cut to the funding of these institutions would disservice our students, our commitment to the public and lands of California, and greatly erode Berkeley's self-stated goal to not just educate, but to actively change the world. We are by some metrics the best Biology division on Earth, and these facilities are a huge part of the reason why.

Aaron Glover, Benicia, CA

The museums and field stations represent the best Spirit of Berkeley. Not only do these resources connect students to the knowledge that will lead to a better, greener world, but the impact of these resources floods out to the world though Cal Day, web engagement, publications, tours for prospective students, and so much more. Please don't strike a blow against Berkeley's future standing for what is ultimately a relatively small savings.

Ashley Poust, Berkeley, CA

I am signing because the Berkeley Natural History Museums and Field Stations were pivotal in getting me launched into work as a wildlife biologist after graduating from Berkeley.

Alma Schrage, Berkeley, CA

UCMP was my first actual experience with the UC system- the museum and field schools play an important role in educating the general public. They are a fantastic example of the application of research in public service.

Alison Phagan, San Jose, CA

As an alumna of the Berkeley Integrative Biology department who benefitted in classes and research from the Natural History museums and field stations, and as a PhD ecologist now continues to use those and other resources, it is crucial to keep them funded. Collections need maintenance that can't be delayed, because specimens can't be replaced. A cut now is a much bigger cut to our future.

Amy Henry, Newport Beach, CA

The Berkeley Natural History Museums collectively house over 10 million specimens, and their data, dating back well over a century. These are irreplaceable artifacts that quite literally tell us about the history of nature. These facilities MUST be maintained and supported, in perpetuity, not treated as peripheral budget items.

**Douglas Yanega**, Riverside, CA

The Berkeley model has not only stood the test of time, it is increasingly relevant in an era when detachment from the natural world is burgeoning. i am an MVZ product (PhD 1978), and brought a new generation to follow Grinnell students Mary Erickson and Barbara Blanchard DeWolfe to UC Santa Barbara. The MVZ-styled courses my colleagues and I offer here are heavily enrolled, and have been quite influential over the past 40 years in directing good students toward careers in the natural sciences. There was a small vertebrate museum and larger herbarium when I came here in 1977, and I have built the herpetological collections into the most extensive regional resource. I have had to fight hard against budget slashes and have heard all the arguments pro and con until hell freezes over. DO NOT tamper with this aspect of Berkeley's mission -- it is monumentally short-sighted!

Samuel Sweet, Santa Barbara, CA

As a UC grad and field biologist, I'm attuned to the importance of field research stations. In an era where many consider climate change to be among the top threats to biological diversity it would be tragically short-sighted to step back from Cal's long and storied legacy of leading-edge research info its observable effects. Please consider the implications of going down this dangerous path.

Robert Hamilton, Long Beach, CA

As a scientist who has used material from UC Berkeley's world renowned museum collections in my own research I am asking that you to not impose crippling budget cuts on these important resources for students, scientists, and the general public. In addition to curating specimens used by researchers from all over the world, researchers at the UC

Berkeley museums are leaders in the field and are well-known for innovative uses of biodiversity data and training the next generation of scientists (and training others to be good stewards of our planet). At a time when biodiversity research is so critical, cutting funding to be these institutional gems seems shortsighted. Please stop these crippling budget cuts to UC Berkeley's museums!

Jason Weckstein, Philadelphia, PA

The UC Berkeley Natural History Museums, particularly the UCMP, were integral to my education and are the reason I am pursuing a Ph.D. in evolutionary biology. These museums and the field stations are integral to the research, education, and outreach missions of the university and must be funded more not less!

Zachary Morris, Chico, CA

Maintaining the BNHM and FS is critical. I have benefitted greatly from the BNHM collection, even though I have no other connection to Berkeley. I know many other scientists who can say the same. What critical future studies will be squashed because of defunding of these two important resources? Hard to believe that an institution so heavily dedicated to scientific research would take this path.

Margaret Lewis, Galloway, NJ

As a PhD student at UC Davis I participated in research and other activities at Sage Hen Creek, Blodgett Experimental Forest, and Hopland field station. I also visited many other UC field stations as part of courses, conferences, etc. The UC network of Field Stations and Experimental Forests is a jewel and a wonderful outdoor lab for research, teaching, and extension. UC should put high priority on supporting and preserving it.

Susan Conard, Lincolnville, ME

Research facilities such as the Berkeley Natural History Museums and Field Stations serve as a vital resource to the scientific research community and the general public. The museums are also the state-designated repositories for resources associated with the history of California. The museums serve as active repositories for valuable natural history collections representing millions of dollars of taxpayer funds. Without resources such as the BNHM the fate of such collections is unknown.

Scott Starratt, Albany, CA

I have used this collection for research and published many times on results. It is an irreplaceable treasure that deserves full and stable funding.

Gary Casper, Slinger, WI

The museums, research facilities, and field stations associated with UC Berkeley were vital to my growth and education as an undergraduate. I am who I am today, and do what I do, because of these institutions. Not only that, but the work and research that is coming out of them is so very important.

Jennifer Bates, Berkeley, CA

The collections that the museums keep are a priceless resource for scholars around the world; if they deteriorate, they can't ever be replaced. Neither can the unique ecosystems that the field stations preserve. My own modest scientific career and contributions—and those of thousands of scientists, many of them far better than I—would not be possible without the museums and reserves. UC-Berkeley's reputation as a top university in organismal biology will be badly impaired if these are neglected or allowed to deteriorate—there is no substitute for them. I would also predict—nothing definite, Dr. Christ; I'm just sayin' here, dude—that alumni willingness to donate would also drop precipitously in certain quarters. Please consider not slashing the budget for some of the gems in UC's crown.

Ben Waggoner, Conway, AR

These entities provide critical infrastructure for the kinds of studies needed to address the critical conservation questions of the day.

Janis Dickinson, Carmel Valley, CA

UC Berkeley should be increasing the budget for the BNHM and FS not cutting the budget. The collections and natural reserves are irreplaceable. Moreover, the collections provide an unparalleled opportunity for students to witness the incredible biological diversity not only of California, but globally. We need these collections to assist

scientists in determining potential extinction events due to climate change and the ability of species to adapt to rapidly changing habitats.

**Donald Miles**, Athens, OH

I got my training in paleontology at UCB. There I had the best instructors and classmates I could ask for, but what set the place apart above and beyond these fabulous advantages were the resources; UCMP and its fossil and Recent collections, and the (then) Department of Zoology and its collections. These weren't available elsewhere, and surely that had something to do with the success rate with which UCB students obtained (and still obtain) the best positions available nationally and internationally. Once these deteriorate, they are very hard to revitalize, and as they deteriorate, world-class students are in effect being deprived of what they attend UCB to get. Let's not lose something so precious, simply because its value is perhaps under-appreciated!

David Fastovsky, Kingston, RI

At a time when the validity of scientific results, the importance of scientific findings in decision-making, and the very core of scientific methodology are regularly assaulted, it is imperative that we continue to train excellent future scientists and provide them with the tools necessary to make substantive knowledge-expanding, life-saving, and planet-preserving discoveries. As a former practicing evolutionary molecular geneticist and a current genetics instructor, I am dismayed at the decision to cut the budget of the crucial Berkeley Natural History Museums (BNHM) and Field Stations (FS). The BNHM house and curate collections that are found nowhere else and not only support invaluable scientific research but also stir the scientific souls of anyone who visits them. The field stations provide unequaled opportunities to study important natural systems, test nascent hypotheses, and develop important policies for saving our planet from the destruction that so many seem determined to rush us towards.

Cal Young, Placentia, CA

As a plant scientist I am dismayed to hear that a internationally known leading scientific teaching institution is facing cuts that would seriously impact the teaching of courses relevant to biodiversity.

Peter Wilson, Beverley Hills, CA

The Natural History Museums provide critical resources to help understand biodiversity and how and why it is changing. I and my students rely on the museums in so many ways: for specimens, for occurrence data, for advice, and the intellectual perspectives that the museum community provides. And the Museums and their staff are truly global leaders in the field of museum science and outreach, setting and shaping the standards that help elevate and connect museums and scientists from institutions in California, North America, and the world.

Jessica Blois, Merced, CA

I spent a semester at UCB and used both field stations and museums. These experiences are a large part of why I continued to earn a PhD in biology, and am a biology professor today. Access to these resources is a vital component of education for future Berkeley students, and are a large part of what give UBC it's status in the biological sciences - please do not gut these unparalleled resources.

Morgan Fredericks, Lewisburg, PA

When I was an undergraduate at Berkeley in the 1980s, the natural history museums and field stations were the most important parts of my education, shaping my future career as a biologist/ biology professor. I'm horrified at the thought of them losing funding.

Rebecca Irwin, Forest Park, IL

Berkeley is one of the few institutions that has continuously valued its natural history collections—as a result they are world-class. Keep them fully funded!

Stephanie Stuart, Monterey, CA

I have met so many leaders in ecology, evolution, genetics, and biodiversity sciences in general that have connections back to the MVZ. The MVZ's "multiplier effect" is astounding. The dividends paid to science and conservation from a modest investment in the MVZ reverberate across decades and across continents. I am based in Colombia and have worked in many other Latin American countries where I endeavor to share with young people the knowledge and perspective I first gained though working as a research assistant in the DB Wake Lab. Please restore the MVZ, its sister museums, and the UC reserve system to former funding levels!

Every hour a scientist spends trying to raise funds is an hour lost from important thought and research. -Isaac Asimov

Jason Lindberg, Placerville, CA

The BNHM are critical to the role Berkeley plays in the scientific community of biologists, geologists, and environmental scientists. Cutting funding to these museums is short-sighted and misguided, and will have a detrimental effect on Berkeley's national reputation.

Samantha Hopkins, Eugene, OR

El BNHM mantiene colecciones de invaluable valor para la humanidad. Con esto en mente, cientificos por años han revisado y depositado material al Museo. Se debe asegurar su funcionamiento en condiciones óptimas. (The BNHM maintains collections of immense worth to humanity. With this in mind, scientists have for years collected and accessioned material for the museums. It is worth ensuring that they continue to function under optimal conditions.)

Carmen Espoz Larrain, Santiago, Chile

I cannot emphasize enough how important UC Berkeley Natural History Museums and Field Stations are to the university's core mission of research and education. Berkeley's museum collections are foundational and fundamental not only to the university and the UC system but to global natural history and conservation efforts. These institutions hold invaluable Holotypes and Paratypes of plant and animal species combined with those at other institutions form the foundation against which any new species are discovered, described, preserved and potentially protected. The UCB field stations provide practical natural history education, training and research experience for undergraduates, graduate students and faculty that is unparalleled. These institutions are extraordinarily valuable to Berkeley and the entire UC system and are in need of support - not budget cuts. I would not have the career that I do without them.

Thomas A. Wake, B.A. UCB 1986, M.A. UCB 1989, Ph.D. UCB 1995, Culver City, CA

The USGS already donated their huge mega-invertebrate fossil collection to UCMP. The museum subsequently made it far more accessible to the public than ever before. Samples are stored both at the Museum on campus and at their field station. Now the plan is to do the same with the USGS micropaleontology collection. Once again, it will be far more useful to scientists and the public alike. This is a resource that shouldn't be curtailed. It is imperative to preserve the Berkeley Natural History Museums and Field Stations.

Mary McGann, Walnut Creek, CA

These stations provide hands-on experience and education unavailable on campuses anywhere. They are essential to ecology, systematic, conservation, and biodiversity studies. They are even more essential in these times of changing climate, as they provide sites that are protected and can be studied over meaningful times.

Jere Lipps, Oakland, CA

The long-standing excellence of Berkeley's field stations may be easy to take for granted, but it's not priceless. These institutions need and deserve adequate funding to continue to contribute invaluably to science, education, policy, and Berkeley's prestige. In the richest state in the richest country in history, it is unconscionable to reduce the services of these vital institutions

Natalie Reeder, Berkeley, CA

The pivotal role that the museums at UC Berkeley, including the MVZ and the UCMP, have played in our understanding of the history of life on Earth cannot be overstated. My own accomplishments in natural history are modest by any measure; nonetheless, I could not have achieved them without the museums at the University of California at Berkeley, where beginning as a teenage undergraduate student I learned how to identify animals from their bones and teeth. Some direct results of my having been given access to the collections in the natural history museums at Berkeley (where I earned my A.B. and Ph.D.) include descriptions of an extinct species of pronghorn antelope from prehistoric deposits in California and fossil teeth of early modern humans from the Late Pleistocene of South Africa. There cannot be good reasons for slashing the budgets of the natural history museums at UC Berkeley.

The Berkeley Natural History Museums and Field Stations are an irreplaceable asset. If they are closed down, the collections and opportunities can NEVER be rebuilt. Biology is not simply test tubes and molecules; it should include exposure to actual living ecosystems, specimens, and the chance to grapple with the big picture. Berkeley has this now; don't throw it away.

Patty Shipman, Moncure, NC

These museums and reserves have transformed the lives of students and entire fields of science. It doesn't make sense to cut something so irreplaceable on the one hand and so important to the University of California's excellence on the other...

Neil Shubin, Chicago, IL

The MVZ and Jepson Herbarium (and field stations) are critical parts of research and the preservation of prior research, as well as the preservation of samples for future research.

Peter Stokes, Berkeley, CA

The extent Berkeley's environmental science programs (undergraduate and graduate) will suffer if such cuts are passed far surpasses the immediate, quantitative representation of them as dollars and cents.

Rebecca Parks, Washington, DC

The museum is a vital source of important artifacts for the research community that I was able to be a part of in my early years at UC Berkeley.

Michael Zhou, Berkeley, CA

Especially these days, threats to science and research are becoming more severe. Over the years I have attended many of the classes taught here, enriching my life as well as my teaching. We must keep the department intact and fully funded!

Arlyn Christopherson, Oakland, CA

I studied at Gump Biological field station as an undergraduate. The real-world experience conducting research in the field was foundational to my education and future. Field stations in general are crucial resources for enabling research. Universities should fund them.

Kathryn Bickel Goldman, North Hollywood, CA

As an undergraduate at UC Berkeley, access to field stations and museum collections was instrumental to my education and, ultimately, my career. I hope the powers that be hear our voices and continue to ensure these resources flourish and inspire students and scholars in perpetuity.

Jeffery Goldman, Sherman Oaks, CA

Not a Berkeley intellectual, but an Anthropologist degree from Cal State/East Bay. I spent my childhood in the Milwaukee public museum and Chicago Field Museum gawking at the bones of evolution. Then attended Berkeley courses after moving to Cali. Anthropology from Cal State East Bay. It is important to learn about the planets' progress. through time. Think the messages above and below mine state clearly the need to keep this important work going. I wish you well in your struggle with this funding problem.

Carla Mertins, Livermore, CA

It is foolhardy to cut programs dedicated understanding and preserving our environment at a time when it is so endangered by short-sighted politicians.

Albert Brewster, Woodacre, CA

My Berkeley field and museum experiences were vital to fostering my passion for science and education, and helped lead me to a career in research and teaching. We need to preserve such opportunities for both this and the next generation.

Tracey Brown ('91), Escondido, CA

The Berkeley Natural History Museum was critical in developing our own museum of natural history at UNR. Without them, we would have never had the knowledge or capability to preserve natural history that we do today. I have also benefited as a student multiple times from their network of field stations. The knowledge gained at these places will serve me throughout my career. Please don't cut these programs as they are absolutely vital to our understanding of nature and getting the next generation interested in protecting it.

Jason Wurtz, Reno, NV

The Berkeley Natural History Museums have fantastic collections that are of high international relevance, contain many holotypes and unique material. They have advanced and supported countless scientific projects of great importance. Museum collections are not an outdated assembly of objects - quite the contrary - they a treasure that is researched with cutting edge methods and technologies and they are crucial for understanding our living world, past and present. They continue to gain importance for understanding and meeting the threats of our time. The planned budget cuts for such iconic and important museums are alarming and I very much hope that this decision will be reversed - in all our interest.

Nadia Fröbish, Berlin, Germany

Education and research are the core purposes of higher educational institutions.

Sarah Malia, Knoxville, TN

Research that promotes sustainability is essential. Also, as an environmental educator I know that the need for children to understand the natural world is one of the most important issues in the world.

Paul Belz, Oakland, CA

The Museums and Field Stations are tremendous assets to students, researchers and the public. In this time of global change, we need them more than ever.

Cheryl Longinotti, Corte Madera, CA

The Berkeley Natural History Museums and Field Stations have educated me and my family, my public high school students and the world about what we need to know about the history of life and our place in the world. We face alarming challenges as human population grows and climate change proceeds. We need these institutions to provide scientific information and maintain the legacy of past research in natural history.

Katharine Noonan, Albany, CA

As a science teacher and curriculum developer in the Bay Area, I have used continuously used the multiple resources provided by BNHM for over 10 years! BNHM provides university information to teachers through workshops and online access. BUDGET CUTS WILL LIMIT THIS PRICELESS RESOURCE!

Susan Sherman, San Francisco, CA

BNHM-UCMPs rich resources have bolstered my abilities to bring authentic science experiences to my classroom for the past 10 years. Please do not limit this resource!

Betsy Barent, Lincoln, NE

Over the years we have had several speakers from Berkeley Natural History museums come speak to the students and community at Marin Science Seminar, and I know they do so much more to support local education at every level. Defunding the institutions that support biodiversity research and education is a mistake.

Alfia Wallace, San Rafael, CA

As a former Berkeley undergraduate and current PhD student at UCSB, I feel deeply that the Berkeley Natural History Museums are essential to the education of undergraduates and critical to biodiversity research, much of which is driven by having museums such as these.

Molly Moore, Nevada City, CA

I am a high school teacher and have been using the Understanding Science website for years. I use it at the beginning of the year for all of my classes including Anatomy/Physiology. Love this resource and availability of content for different age levels: have shared it with our elementary teachers too.

Lisa Peck, Saint Petersburg, FL

I teach high school and college biology as well as tutor in the same, and I use the resources all the time. I particularly make use of the resources on phylogeny and evolution. Please keep them up and running. There are thousands of teachers out there who use these resources.

Diane Gallentine, Geneva, IL

As a graduate student at Cal, I found the Museums and Field Stations to be vitally important to my education as well as to undergraduates in the important science fields. The museum and field stations provide hands-on experience and a broad understanding of our physical world, neither of which can be gained in a classroom or lab setting. Such a massive budget cut to programs already working with minimal budgets will necessarily diminish the quality of the research and education work that is a vital part of UC Berkeley's mission and history.

Kate Bolton, Petaluma, CA

Even though I was a lab person (PhD'76) I enjoyed many trips to various field stations. I carried my positive experiences there into my teaching career where I had the confidence to teach several field courses each of my 31 years and taught at the then ACM Wilderness Field Station for years. These are invaluable resources that must be preserved, especially as the science becomes even more lab bench based.

**Bradford Rence**, Portland, OR

Sagehen Creek Field Station is near us and it is an incredible and special place. I coordinated a Family Science retreat for years at Sagehen and all the families agreed that Sagehen was a unique biological spot in California and the families were grateful for the opportunity to visit and learn at the Field Station as a family! Our local school district utilizes Sagehen Creek Field Station as part of the science and language arts curriculum in elementary and high schools. This resource is vital to UC Berkeley students, to other scientists and researchers, and to our community.

R.H. Seeley, Truckee, CA

One of my first field jobs was at Hastings Natural History Reservation (UC Berkeley Field Station), which inspired my career pursuit of academia. Now I am faculty at UConn and can attribute part of my success to a UC Berkeley Station.

Sarah Deamer, Salt Lake City, UT