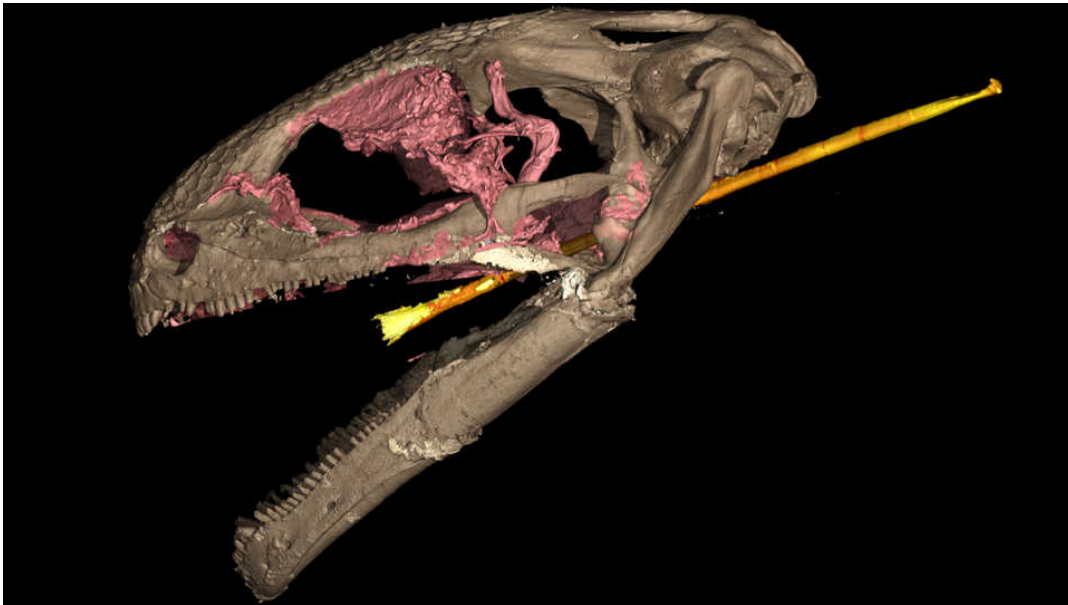


# 4 Standout Species Described in 2020



Science always finds a silver lining in even the gloomiest of storm clouds—and 2020 is no exception.

Navigating both the COVID-19 pandemic and the museum's extended closure, Academy scientists still managed to describe a whopping [213 new species this year](#), from fluorescent fish in the deep reefs of the Central Pacific to ancient fossils deep in the Academy's collections. Each species added to the tree of life enriches our understanding of our planet's biodiversity—and gives us countless colorful reasons to protect it.

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## Learn more

Check out our press release for more stories behind the science of this year's 213 new species.

[View press release](#)

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## The Academy's Research Institute

The mission of the Academy's Institute for Biodiversity Science and Sustainability is to gather new knowledge about life's diversity and the process of evolution—and to rapidly apply that understanding to our efforts to sustain life on Earth.

[Explore IBSS](#)

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## Support new

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**Scientific name:** *Plectranthias hinano*

**Family:** Serranidae (includes anthias, sea bass, and grouper)

**Discovered in:** [French Polynesia](#)

**Described by:** [Bart Shepherd](#), Senior Director of Steinhart Aquarium; [Luiz Rocha, PhD](#), Curator and Follett Chair of Ichthyology; and collaborators

This vibrant little fish inhabits MCEs (Mesophotic Coral Ecosystems) in the Central Pacific Ocean at depths of around 300 feet. A team of deep-diving scientists collected a specimen using [SubCAS](#), a groundbreaking Academy invention designed to safely transport fish from ocean depths to sea level. Travel plans not taking you to Tahiti anytime soon? Look forward to experiencing a kaleidoscopic array of mesophotic species in the [Twilight Zone](#) exhibit when the Academy reopens.

Our doors may be temporarily closed, but science never stops. Make a gift of any size to ensure 2021 is a banner year for research, education, and exploration.

[Donate Now](#)



When descending into the twilight zone, Luiz Rocha uses rebreather equipment for longer, deeper dives.

## Technicolor *Chromodoris*

**Scientific name:** *Chromodoris* spp.

**Family:** Chromodorididae (includes nudibranchs)

**Discovered in:** Indo-Pacific region

**Described by:** [Terry Gosliner](#), Senior Curator of Invertebrate Zoology and Geology, and [Lynn Bonomo](#), master's student, San Francisco State University

“The really big researchers are the ones who name species. I never thought I would name a species.” Lynn Bonomo was right. She didn’t name a nudibranch species—she named *four*. The new *Chromodoris* species she described display striking colors and eye-popping patterns that likely serve to warn would-be predators of the animals’ toxicity. Tune in to [NightSchool](#) on January 7 to hear Lynn and Terry discuss their discoveries.

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A *Chromodoris balat* nudibranch. Terry Gosliner © 2020  
California Academy of Sciences

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## Making (ancient) history

**Scientific name:** *Lyropecten terrysmithae*

**Family:** Pectinidae (includes scallops)

**Discovered in:** [Invertebrate Zoology & Geology collections](#)

**Described by:** Charles Powell, II, Academy Research Associate; [Chrissy Garcia](#), Collections Manager, Geology; Cheryl Millard

Comprising over 46 million specimens from microscopic bacteria to massive whale skeletons, the Academy's scientific collections are a dazzling library of life. They're also a frequent epicenter of discovery. During a review of fossil collections from institutions across California, Powell, Garcia, and Millard were able to pick up where mollusk expert Dr. Judy Terry Smith left off, describing an all-new, 11-million-year-old scallop species—and naming it after the pioneering paleontologist herself.

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"Increasingly, specimens housed in museum collections are the only remaining evidence of the existence of many species," says Garcia.

## Stuck in time

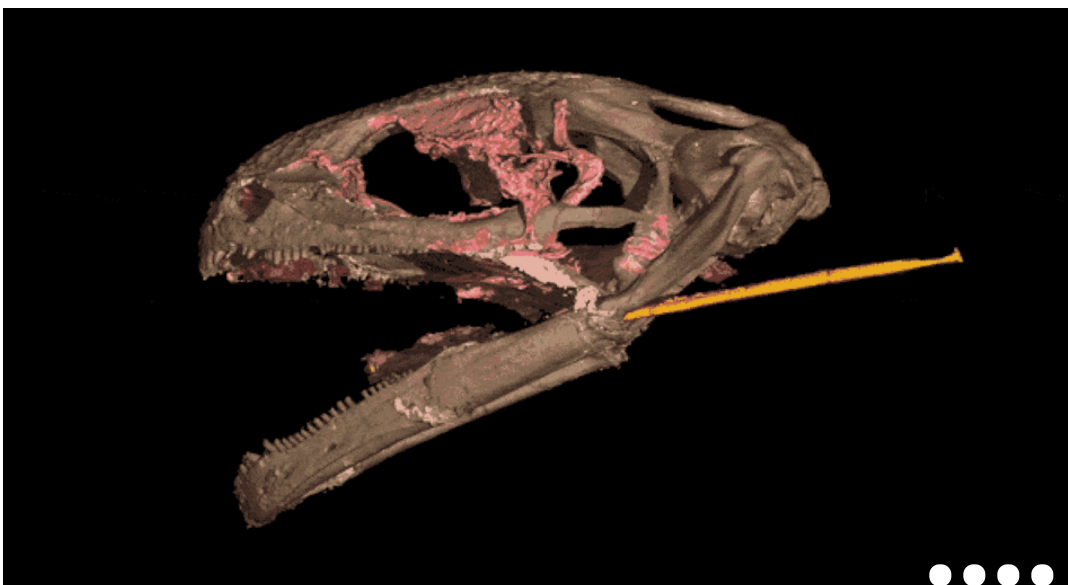
**Scientific name:** *Yaksha peretti*

**Family:** Albanerpetontidae (includes extinct amphibians)

**Discovered in:** Myanmar

**Described by:** Aaron Bauer, PhD, Research Associate, and collaborators

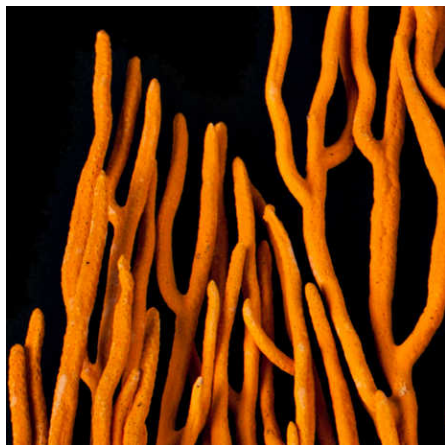
Fossils alone are a paleontological payday, but fossils *in amber* are the jackpot, preserving details of a specimen that might otherwise be lost to the ages. "To have this unique opportunity to look at a complete skull that is not deformed as many are gives us a look into the face of an animal that lived 100 million years ago," explains Bauer. "It might be decades before another specimen of this quality appears."



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## [Follow us on social for more new species news!](#)

### More to Explore



#### [Invertebrate Zoology and Geology](#)

Dig in to the Academy's most diverse collection, home to over 2.5 million specimens from corals to fossils.



#### [Learn & Explore](#)

Meet Academy scientists, explore animals and specimens, and stoke your curiosity with hands-on learning tools.



#### [Ichthyology](#)

The Department of Ichthyology is home to one of the largest, most significant collections of fish in the world.