SEAMAIL™

TO:        Virtual Deep-Sea Science Team
FROM:      Bailey Skinner
SUBJECT:   Life at Sea

Hello Virtual Science Team,

My name is Bailey Skinner. I recently graduated from Texas A&M University with a Master's degree. In case you don't know, the first few years you go to college you work on a Bachelor's degree. If you want to keep studying something you are interested in, you can go on to work on a Master's degree. That's what I just finished. At the end of your Master's degree program, you work on a big project.

My big project was to build a computer model to predict the 'aragonite saturation state.' That's a hard set of words! A little easier way to say it is that my model tries to predict how much calcium is in the water in different parts of the Pacific Ocean. Animals use calcium to build their shells and exoskeletons. If there isn't enough of it in the water, they can't survive.

Currently, the way we (scientists) test how much calcium carbonate is in the water takes a really long time. We have to gather tons of water samples and do lab tests on all of them. I wanted my model to be able to predict these results much faster and much cheaper.

I worked on my project for a whole year! I entered data about how much salt and oxygen have been measured in the water at different places in the Pacific Ocean. I also entered data about water temperature depth. This helped "teach" my computer model what to look for.

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Illustration by Paul Lopez
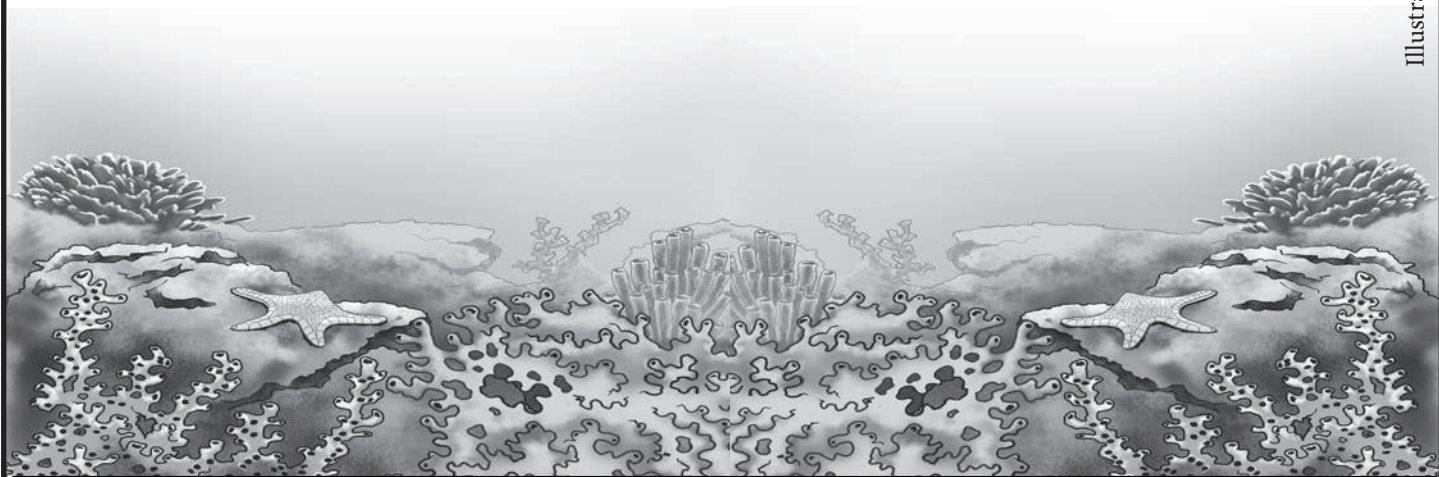
All along the way, I tested the model to see if it was working properly. I had to do a lot of computer programming. Sometimes when the computer code wasn't working, it was really frustrating. But finally, I got it to work!

When I finished my project, I got to present it to other scientists. They were really excited about what I had done and suggested ideas to make it better. I'm so proud that my work will help other scientists learn more about the ocean.

*Bailey*

Bailey Skinner
Deep-Sea Explorer
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Is there something you've worked really hard on that you're very proud of?

Illustration by Paul Lopez