

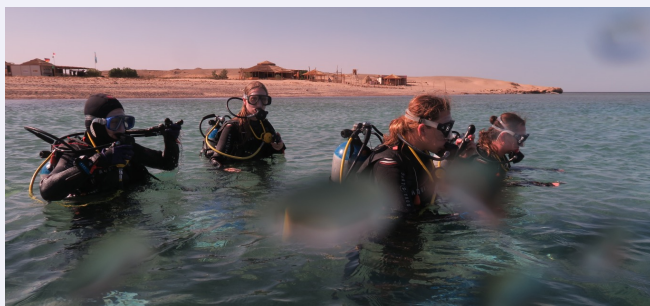


EXCURSIONS AND OTHER NEWS

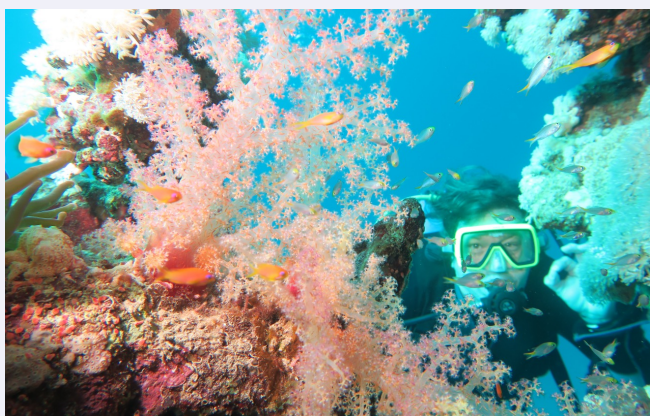
Small insights in student's or professor's points of view, field trips, and other stuff we do.

The Ninth Marine Field Trip of the Faculty of Biology to El Qoseir

Leonie Hobohm, Oliver Zierau



On 13th of March 2023, we, 22 tired students and two perky professors stepped off a plane in Hurghada, Egypt, knowing they had to embark on a bumpy, two-hour bus drive to a dive camp near El Qoseir. After an introduction and preparation day our group split, the experienced divers started scuba diving immediately while the newbies began their diving course. We all felt instantly at home at the roots camp, where we lodged in small 3-4 person huts, except the professors who lived in three star air-conditioned, disabled-access mansions. Nevertheless, not the comfort of the housing was our traveling reason, but the close by, beautiful biodiverse house reef. After five days of training almost everybody had their diving licence and the real fun began. Except for some students who decided to train for a deep diving certificate with additional two-day training.



A normal day of our field trip looked like this: the professors had breakfast at 6:50h, the students followed suit, or not so suit 45 to 60 min later. At 9:00h the assembled team moved to the house reef, put on the gear and dipped their heads into the water to experience the magnificent underwater life. The whole day was spent in the water with an extensive lunch break between the two dives. We calmly watched the octopus, moray eel, and lion fish, only the real turmoil broke loose when bottle nosed dolphins and manta rays turned up. Since we were all aware about the coral bleaching worldwide, we were positively surprised about the rich stony coral life along every part of the coast we dived at. We spotted an incredible number of species and could identify around 250 of them. The most notable were the hawksbill sea turtle, eagle ray, red sea walker, stone fish, sea moths and of course the universally adored anemone fish. After diving, before we could unwind, all joined together in a scientific debriefing where we discussed all the marine life we observed that day. After we ravished the buffet-style dinner we spent the evening together sometimes playing games, watching movies, and occasionally indulging in a maybe alcoholic beverage. Besides the house reef we also explored other dive sites: Gasus Soraya, Maheleg and Serib Kebir, and had excursions to a mangrove bay, to immerse ourselves into this special biotope and Luxor to experience some of the world's most popular historical sites. Despite German-wide strikes, we 22 happy students and the two exhausted old men arrived safely back in Germany on 27th of March.

When looking back, what is most memorable was the team spirit that emerged between the students, professors and dive instructors through all the time spent together learning and having fun. Consensus is, that we all wanna go again!

LIFE AS A SCIENTIST

Interviews with professional scientist, insights in their research and lives.

Life As a Scientist – Interview With Prof. Ludwig-Müller

Hello Prof. Ludwig-Müller, please introduce yourself and tell us about your research topic.

My name is Jutta Ludwig-Müller and I am professor of Plant Physiology. I studied Biology with botany, microbiology and biochemistry as major topics. For a long time I have been studying the biology of plant hormones investigating their role in development, as well as interactions with environmental stress and interaction with microbes.

What is one important finding you have made during your career as a scientist?

There is not really only one finding I would like to point out, rather three topic areas. First, I had been involved in showing that a second longer-chain auxin molecule, indole-3-butyric acid, is present in plants and involved in developmental processes. Second, I have been studying a rather complicated plant disease called clubroot for a long time now. It is great to have participated in the advances made by 'omics approaches, but also by looking into very specific protein functions. There, we discovered a protein from the pathogen with an important enzyme activity for pathogenesis. Third, I want to highlight a finding on the production of specialized metabolites. These metabolites have been wrongly associated with a plant species in the literature. They are actually produced by an endophyte, a microorganism living inside the plant, which we isolated in my group.

What do you like most & least about your job?

I like to be creative in scientific discussions with the group members and colleagues during conferences on various topics that can lead to novel ideas for our current research. Exploring novel pathways or methods for developing the scientific work in my group is also an important aspect. I also like that I am able to confer current research into advanced courses and change my topics accordingly. The least I like that more and more administration is taking a lot of my time. Also, the tendency that teaching, at least in the basic programs, is getting more like school teaching I do not like.

Plant hormones are an important aspect of your research on plant physiology. Which one is your favorite plant hormone and what does it do?

Auxin, since this is the major growth hormone and I, and later with my group, have studied many aspects of it. Auxin controls all aspects of growth in a plant and an auxin-free plant does not exist, but there are auxin-reduced plants with dramatic phenotypes. However, auxin is not only important for plant development, it is involved in controlling stress responses, and plant – microbe interactions. Also interesting: many microbes use auxin as a language to interact with their host plants, and auxin is one major component of the symptoms of clubroot disease we study.

If you could not be a professor, what job would you like to do (apart from science)?

Something with arts and crafts, most likely silver or gold smith.

Which book would you recommend everyone to read?

Since I know that personal affections most likely bias such a recommendation, this is a difficult question. Nevertheless, „Schädelfall“, unfortunately only in German, is an interesting read in times of questions on fake news, plagiarism, wrong scientific results etc. The novel is based on facts that have occurred at the anthropology institute in Frankfurt. For a readership with an academic background, the story is truly interesting. For science fiction the trilogy 'The Hitchhikers Guide to the galaxy' is a classic, but only the English original, in which the special humor of the author is present.

What new thing would you like to learn?

More languages, specifically Spanish and Italian to use during travels to respective countries.

EXCURSIONS AND OTHER NEWS

We Have Been FOSTERed!

Nele Kheim

FOSTER is short for Funds for Student Research. It is a funding programme at TU Dresden, which we applied for with BioS Reports. And we got it! Being funded means we can employ ourselves at TU Dresden as student workers until the end of the year to keep making BioS Reports. We are very honoured by the support, and happy we can continue to share our work with everyone who is interested. If you are a student or young scientist with a cool project in mind, do not hesitate to check out FOSTER for financial support.