

Progress report : Coralline algae



Anja Rösler

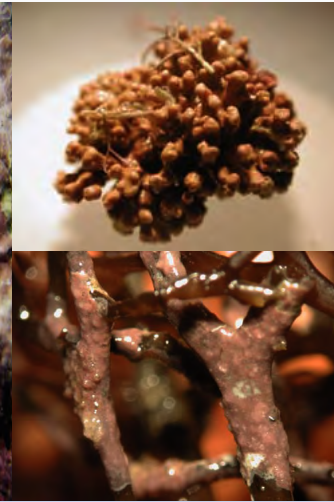
Departamento de Estratigrafía y Paleontología

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Short reminder

- Document the timing and patterns of the diversification of reef-building coralline algae in the Indo-Pacific





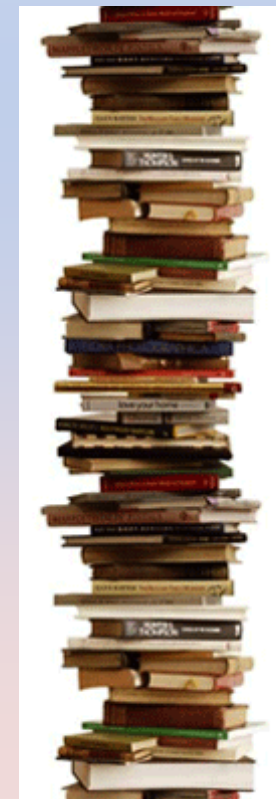
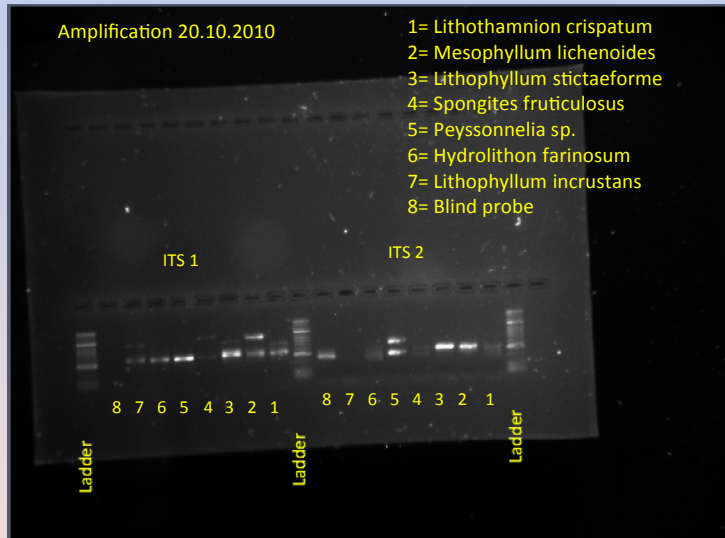
Extracting DNA Glop from Wheat Germ

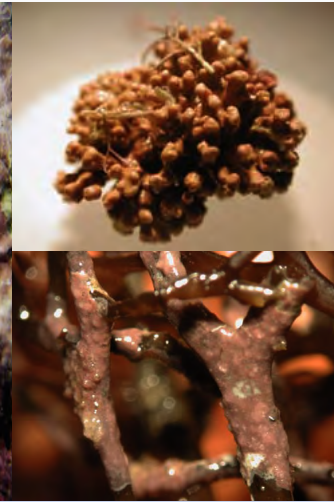
Extract **DNA** Extract

Wheat Cells Nucleus DNA

1. Take a tube with one gram of wheat germ. Find the 20 mark on the tube.
2. Pour water into the tube up to the 20 mark on the tube.
3. Shake the tube for three minutes.
4. Add one soap tube into the big tube.
5. Gently rock the tube for three minutes. Try not to make any bubbles.
6. With the tube at an angle, gently pour alcohol into the tube up to the 35 line. Do not shake!!!!
7. Do you see some white glop in the top layer? Take a swab and try to remove the glop with the wooden end.
8. Put some glop into a clear tube. You may keep the tube as a souvenir.


The glop is DNA, along with some carbohydrates and protein.






Extracting DNA Glop from Wheat Germ


Extract **DNA** Extract




Wheat



Cells



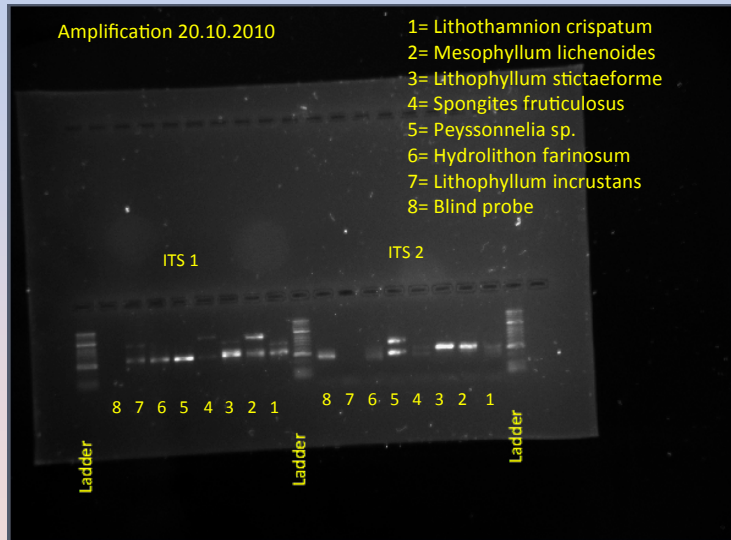
Nucleus



DNA

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Recent work

- Equipping genetic laboratory
- Stabilizing methodology of DNA extraction of recent algae with mediterranean species
- Experimenting further steps, also with herbarium material
- Studying important publications on taxonomy
- Coordinating sampling informations with stratigraphic pre-results

Conclusions

- Conditions set for intensive genetical analysis
- Pattern of facies where algae can be found
- Algae samples cover relatively small time span => Oligocene, Aquitanian and Serrevalian sites would be *completing*

Next steps 2011

- Amplification of various genetic markers
- Sequenciation
- Continue studying taxonomy
- Collect recent algae in Australia
- collect more fossil algae of different stages
- When samples arrived:
 - Make thin sections
 - Taxonomical analysis
 - Fill up the time/occurrence table
 - Provide environmental information

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- Creating the Coralline Algae Scratchpad

Thank you!

