

- **Flexibility of sea-ice photosynthesis**

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Algae growing in sea-ice are exposed to extremely variable conditions. In order to predict the capacity of the algae to survive altered climate we need to understand the physiological limits and the biochemistry which controls these limits.

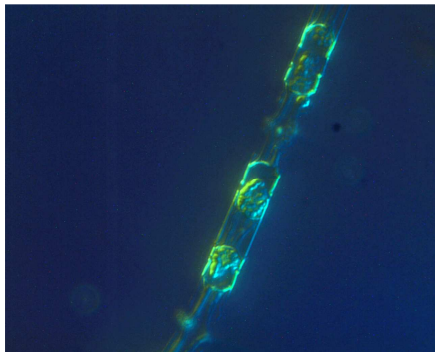
The research will be carried out in Antarctica and at UTS in control temperature facilities.

Aims:

1. To measure the tolerance of ice algae to variable irradiance
2. To assess the importance of alternate electron sinks to protect the electron transport chain versus xanthophyll cycle
3. To explore whether having a high level of flexibility compromises overall algal productivity.

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Diatom Indigo
Images by Katherina Petrou



Algal Mats, Antarctica