

**LGP SCIENCE STEERING COMMITTEE MEETING**  
**2pm, Tuesday 19 October 2004, Teleconference**

<b>PRESENT:</b>	Megan Balks	University of Waikato
	Vonda Cummings	NIWA
	Ian Hawes	NIWA
	Ian Hogg (in place of Allan Green)	University of Waikato
	Clive Howard-Williams	NIWA (LSSC Chairperson)
	Shulamit Gordon	Antarctica New Zealand
	Dean Peterson	Antarctica New Zealand

**Actions from LSSC Meeting**

Responsible	Action	Status
<b>Shul</b>	Give Megan Tim and Thomas' email so Dave Campbell can communicate with them re AWS download.	
	Look into possibility of colour air photos of the Hallett area.	
	Ensure penguin researchers are included on the LGP mailing list.	
	Work out timing for IEE submission for Darwin camp(s).	
	Pass onto Ops the message re Darwin being the next site.	
	Put out an expression of interest to confirm who from the list, and others, would commit to contributing to this special issue.	
	Look for non-LGP site work that could be included in LGP	
	Check to see if the SCAR biology symposium is on the Ant NZ Website	
	Contact Allan/Catherine regarding baseline data around Hallett.	
	Put out an expression of interest to marine folk on where they are likely to want to work in 06/07 and 07/08 so we can find out from MZS if they have the capacity.	
<b>Dean</b>	Talk to Scot Borg about the possibility of keeping the LTER AWS at Hallett.	
	Find out about likelihood of having satellite telemetry on the AWS.	
	Bring the bio prospecting issue up with Polly Penhale while she's on the ice.	
<b>Megan</b>	Send Shul response to Darwin expression of interest.	
	Ask Jackie Aislabie if she will be going to SCAR symposium.	
<b>Ian Hawes</b>	Provide Ian Hogg with what you would be looking for in the Darwin area (in conjunction with Clive).	

	Submit baseline data for Luther Lakes and metadata.	
Ian Hogg	Include information that would be of a wider interest to the LGP group in his Immediate Science report.	
Clive	Send Shul response to Darwin expression of interest.	
	Talk to Graham at NIWA re Iridium links for an AWS.	
	Find out from Berry what his intentions are regarding installing an AWS at Darwin in the 06/07 season.	
	Contact David Warton to book the July 2006 issue for the LGP and find out what other commitments this entails.	
	Find out how LGP links formally with SCAR under the EBA	
Allan	Send Shul response to Darwin expression of interest.	
	Submit metadata for 03/04 at Hallett.	

**1. This season's activities at Hallett:**

- **K002 Shulamit Gordon:** put in and camp set up. Will hopefully have a chance to have a fly over the Tarn Flat area en route to TNB.
- **K018 Mary Sewell:** second season on 'Latitudinal patterns in the abundance of Ross Sea meroplankton'. Regular sampling as last year over 4 weeks.
- **K024 Catherine Beard (field leader):** Second LGP season on 'Biodiversity and performance of lichen and mosses'. Sampling at points along Edisto Inlet and around Moubray Bay. Also requested sites on Daniell Peninsula and Crater Cirque. Some longer-term studies at Luther Lake with possibility of installing new long-term plots as were introduced in the 60s. One graduate student staying the whole season.
- **K043 Ryan:** Second season on 'Antarctic sea ice, algal productivity and global climate change'. Note that Mary and Ken are undertaking some 'official' collaboration based on last year's work. Ken will be using Mary's sampling device which proved so much more successful than his sampling techniques last year.
- **K122 Brian Karl (field leader):** First season of 'Adelie penguin population dynamics' at Hallett. This is a continuation of Peter Wilson's work at Cape Bird.
- **K123 Megan Balks (field leader):** Second season of 'Environmental protection of Antarctic soils'. Erica Hofstee, winner of the LGP scholarship, will be on site from mid-December till the end of the season studying the soils and hydrology of the area.
- **B-257-M LTER group:** Only one group coming in for about 6 days in early-December. Group consists of the AWS guys who will also undertake some snow pit sampling on the Towles Glacier, and 2 soils folk. Due to timing conflicts Diana Wall will not be visiting the site and the group will not be undertaking their Itex Chamber experiments.
- Want to make sure that all the AWS data is downloaded including the soil moisture sensors values.
- No formal collaboration with the Italians this year.

- Helo support from Italians will likely bring some Italian scientists to Hallett for the night so that kiwi and Italian work can be undertaken without a return flight to MZS (Mario Zuccelli Station).

**Shul:** Give Megan Tim and Thomas' email so Dave Campbell can communicate with them re AWS download.

## **2. Next season at Hallett:**

- Events not returning to Hallett are: KO18 Sewell, KO43 Ryan, K123 Aislabie, LTER.
- Events on the books to head to Hallett (but still to finalise): KO24 Green, KO27 Waas, KO63 Lloyd Davis, KO81 Hawes, KO82 Cummings and Italian divers, K122 Wilson.
- Also trying to get Paulo Cavaccini and Nicoletta Canone from the Italian programme to visit in collaboration with our events (Nicoletta has been in touch with KO24 and she is keen, and Ian to get in contact with Paulo for KO81). Both individuals are also part of the RiSCC programme.
- The Italians are planning a camp at Redcastle Ridge with helo close support. They've been offered the LGP camp for accommodation depending on numbers, but either way this means that there are helo's close by which could support some NZ work.
- The Germans are planning a camp on Edisto Inlet with Twin Otter close support for off shore aeromag work.
- The intention is that the NIWA crew are able to dive through the sea ice in early season under the auspices of the Italian programme, Discussions continue on this. Keen for this to go ahead this year as the logistics framework of the LGP camp is all there. Numbers at the camp may be an issue. Helos and crew likely to be situated at Italian Redcastle Ridge camp.
- Nancy Bertler is planning on conducting her ice coring in areas relatively close to Hallett. Her work also contributes to the LGP.
- Quite a few penguin researchers at Hallett in the 05/06 season. We need to ensure they are kept in the loop of the LGP as they are very much a part of the project.
- Could be interesting to get air photos of the area for mapping purposes e.g. vegetation mapping, at the same time as the penguin colony aerial photos are done.
- LTER not coming back, but their AWS is due to be dismantled this season. Need to talk to the US to see if its possible for the AWS to remain at Hallett and find out if the Italian's might take on the maintenance and download of the unit as it is within their area of operation. Data would be publicly available as it is now.
- Marine budget bid to Treasury by Ant NZ, FRST and MFish is going well. May have some funds to support marine work as early as July 2005, but nothing confirmed as yet.
- Although the 05/06 season is being dubbed as the last LGP season at Hallett, it should be noted that this is only for large scale logistical support at the site.

Events wishing to work at Hallett after 05/06 should still be able to supply for support there.

**Shul:** Look into possibility of colour air photos of the Hallett area.

**Shul:** Ensure penguin researchers are included on the LGP mailing list.

**Dean:** Talk to Scot Borg about the possibility of keeping the LTER AWS at Hallett.

### **3. Darwin site:**

- Ant NZ operations group is weighing up the logistics pro's and con's of heading to Darwin next rather than to the nearer site in the TNB area.
  - a. It's been pointed out that we are already well down the Darwin track in terms of getting science support, but this exercise must still be undertaken.
  - b. LSSC would like to reconfirm to the operations group the importance of going to the Darwin next so that the end points of the gradient can be studied first before filling the in between points.
- K002 LGP (Shulamit Gordon, Keith Springer, Peter de Joux (SB science tech) and TBA (hopefully Ian Hawes) will be heading to the Darwin area for a one day visit. The aims of this are to:
  - a. Install the hybrid AWS that has been pulled together by Ian with parts added by Megan, Allan and Ant NZ. Ian and Peter de Joux and currently setting the system up at SB and testing it. Likely sites are between Diamond Glacier and Lake Wilson, or along the north side of the Diamond Glacier or in the Erewhon Basin.
  - b. Reccie the area for suitable LGP campsites with the view that we may well need to have more than one site to accommodate the needs of the different scientists wishing to work there. Likely to need the main camp where the lab intensive work is based and the satellite camps where less lab work is required. Water availability and waste disposal considerations also need to be taken into account.
  - c. Reccie the area for a suitable campsite for K028's trip a few weeks later.
- A Darwin expression of interest was made in mid-August to scientists in the NZ, US and Italian Antarctic programmes. The compilation of responses are in the table below. If anyone has not yet responded to this, it would still be good to contact Shul so that we can get a good idea of who is wanting to work in the Darwin area.

- Ko28 Ian Hogg (Field Leader): reccie of the Darwin area:
  - a. Group made up of GIS, moss, lichen and springtail researchers.
  - b. Ian has been in touch with Diana, Brent and Ashley (see table below) to find out what kind of information they would like from the area.
  - c. KOO2 got a permit for Ian to collect some soil samples that can be used by these groups to determine future work efforts. These will be regarded as 'public samples'.
  - d. Ian/Allan are very aware that any information they collect about the area will be useful to all parties to give background information. Ian has agreed to include as much general information as possible on the area that might be of use to all interested.

**Expressions of interest for work in the Darwin area:**

Principle Investigator	Discipline	Description
Christine Elliott and GA	Geomorphology/Geology	Mapping geomorphology and geology to give context for the ecosystem work and get met data for moisture availability.
Paul Augustinus	Geomorphology	Soils and permafrost studies relating to the outlet glacier and landscape history.
Diana Wall	Terrestrial Biology - Soils	Sampling of soils
Ashley Sparrow	Terrestrial Biology – Ecosystem productivity	Looking at carbon- and nitrogen-based processes depending valley characteristics.
Brent Sinclair	Terrestrial Biology – Arthropods	Arthropod survey and physiological work
John Priscu	Limnology	Primary production and bacterial production in the water column and ice column of Lake Wilson. Can compare with data in Dry Valleys. Also looking at the ponds.
Berry Lyons	Lake Geochemistry	Lake Wilson and others.
Nancy Bertler	Paleoclimate	Snow coring on Gawn Piedmont

**Ian Hogg:** Include information that would be of a wider interest to the LGP group in his Immediate Science report.  
**Megan/Clive/Allan:** Send Shul response to Darwin expression of interest.  
**Clive/Ian Hawes:** Provide Ian Hogg with what they would be looking for in the Darwin area.  
**Shul:** Work out timing for IEE submission for Darwin camp(s).  
**Shul:** Pass onto Ops the message re Darwin being the next site.  
**Dean:** Find out about likelihood of having satellite telemetry on the AWS.  
**Clive:** Talk to Graham at NIWA re Iridium links for an AWS.

**4. Questions of AWS data analysis**

- All AWS data from all sensor to be placed on the web as soon as is practicable. All agreed on this point.
- Currently, the LGP website has NIWA's AWS data from Hallett and the data from the old station, and links to the LTER AWS data that was collected last season.

- Shul able to put some time into AWS data analysis and generic graphing and putting all on the web.

**Clive:** Find out from Berry what his intentions are regarding installing an AWS at Darwin in the 06/07 season.

## 5. LGP papers to be published in Antarctic Science

- Clive spoke with David Walton, Editor of Antarctic Science. David has indicated that the next Special Edition available is the July 2006 issue. Papers would need to be submitted by December 2005 so they could get through the peer review process.
- Alternately an additional Special Edition could be purchased for £15,000 and papers would go through the regular peer review process.
- All in agreement that the July 2006 issue was a more viable option.
- A rough guess at possible contributors who would have enough data to publish by this time came up with:
  - Ken Ryan
  - Mary Sewell
  - Craig Marshall
  - Megan Balks (confirmed)
  - Vonda Cummings (confirmed)
  - Ian Hawes (confirmed if get more data from Luther Lakes next year)
  - Allan Green
  - Phil Novis
- It was also recognised that to demonstrate the international and cooperative nature of the LGP we would invite papers from the LTER group, the RiSCC community, and our Italian collaborators.

**Shul:** Put out an expression of interest to confirm who from the above list, and others, would commit to contributing to this special issue.

**Clive:** Contact David Warton to book the July 2006 issue for the LGP and find out what other commitments this entails.

## 6. Our links with RiSCC

- Dean reported on this year's RiSCC meeting in France. The LGP came across very well and was demonstrated to have made good progress in its first year of operation.
- Discussed the possibility of the LGP becoming more involved in the organisation of RiSCC, but it was felt best to keep things as they are, but keep up our contact with Dana Bergstrom.
- Clive spoke on the SCAR delegates meeting.
  - A re-organisation of SCAR means that the SCAR project will be re-grouped into 5 main projects.
  - The biological project is Evolution and Biodiversity in Antarctica (EBA). Information on this can be found at: <http://www.scar.org/researchgroups/>.

- EBA has four main objectives. LGP falls in objective four: Patterns and diversity of organisms, ecosystems and habitats in the Antarctic, and controlling processes.
- Under this objective, the key question LGP relates to is: ‘Latitudinal or environmental gradients: how does marine, and terrestrial, and limnetic diversity vary along gradients? Important areas to study are the Antarctic Peninsula and the Victoria Land Coast’.

**Clive:** Find out how LGP links formally with SCAR under the EBA

#### 7. SCAR biology symposium

- The symposium is in Brazil, late July 2005. (see [http://www.nioo.knaw.nl/projects/scarlsssg/docs/anuncio\\_simposio\\_por\\_email\\_jan\\_04.pdf](http://www.nioo.knaw.nl/projects/scarlsssg/docs/anuncio_simposio_por_email_jan_04.pdf))
- This is an opportunity to show some early results from LGP. Please think about this and either try and present something in Brazil or give Shul enough information so that she can represent your science. Shul will be going to the conference.

**Shul:** Check to see if this is on the Ant NZ Website

**Megan:** Ask Jackie Aislabie if she will be going

#### 8. Bioprospecting

- Comments have been made with regards to large quantities of algal mats being taken away from the Dry Valleys unchecked.
- The NZ system has a way to monitor amounts of this sampling, but does the US system?
- These concerns have been raised by scientists who are noticing how much is being taken cumulatively over the years.
- Some of it is believed to be collected for private companies rather than for science research = bioharvesting?
- Need to talk to the US about this.

**Dean:** Bring this up with Polly Penhale while she’s on the ice.

#### 9. Data sharing

- Discussed metadata storage vs. actual data storage.
- Concluded that we do not have the resources to compile everyone’s data.
- Metadata at least lets people know what data is out there and then who to contact if its wanted.
- This at least leaves the control of the data with the data collector and if people contact them for use of their data, then there is a possibility of discussions between the two parties.

- Metadata reports are now a requirement of the Ant NZ reporting, so this data will now be captured and entered into the Antarctic Master Directory and made accessible on the LGP website for LGP metadata.
- For LGP-related data, the LSSC advise that the desirable outcome is for the data to be publicly available two years after collection, whether publications have been produced or not.

#### **10. Metadata and baseline data**

- Still to get metadata from Ian Hawes and Allan.
- Still to get baseline data back from Ian on the Luther Lakes ponds and Diana Wall on Luther Lakes soils.
- Intention that groups visiting other sites in the Hallett area (e.g. up Edisto Inlet and in Moubray Bay) complete a baseline data form for each site.

**Shul:** Contact Allan/Catherine regarding baseline data around Hallett.

**Ian Hawes:** Submit baseline data for Luther Lakes and metadata.

**Allan:** Submit metadata for 03/04 at Hallett.

#### **11. Web Updates**

- Any more to suggest? Please contact Shul. e.g conference dates, changes or additions to the research pages.
- Note that Darwin photos and info have been added.

#### **12. Other research that is taking place or planned which is not directly supported by LGP, but related to the work of LGP.**

**Shul:** To compile information on the above!

#### **12.13. Circulation of LSSC discussion points to the wider community**

- Resulting from comments about lack of communication from the LSSC at the LGP meeting at the conference, its been agreed that the LSSC minutes be made available on the LGP website and Shul will email all to notify of this.

#### **14. Any others?**

- Checking that Vonda is happy with how the marine work is progressing in the LGP. She feels that things are going well.
- With regards to the above, its important to point out the marine participants of the LGP that for the 06/07 bidding round, they need to apply to the sites they wish to go to. From the meeting at the conference, some expressed interest in going to MZS, others to Granite Harbour. As a regular Ant NZ event they can apply to go to wherever you need to go. Of course with the next LGP site at Darwin, you wont be applying to go there.

**Shul:** Put out an expression of interest to marine folk on where they are likely to want to work in 06/07 and 07/08 so we can find out from MZS if they have the capacity.