

**LGP SCIENCE STEERING COMMITTEE MEETING**  
**9am, Tuesday 11 April 2005, Teleconference**

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<b>PRESENT:</b>	Megan Balks	University of Waikato
	Vonda Cummings	NIWA
	Allan Green	University of Waikato
	Jenny Webster-Brown	University of Auckland
	Clive Howard-Williams	NIWA (LSSC Chairperson)
	Shulamit Gordon	Antarctica New Zealand
	Dean Peterson	Antarctica New Zealand

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**Actions from LSSC Meeting**

<b>LSSCer</b>	<b>Action Item</b>	<b>Status</b>
<b>Shul</b>	Find out if any Italian biologists visited Hallett this year	
	Find out if Jackie got any Darwin soil samples from Ian Hogg	
	Find out about getting GPS base station at Hallett for more precise GPS measurements	
	Ask Italian AWS contacts if they would be willing to take on the maintenance of the Hallett AWS	
	Check with Thomas if NIWA moisture sensors could be linked onto LTER AWS datalogger if it stays at Hallett	
	Request K002 helo time to download Darwin AWS in 05/06 preferably with a NIWA tech.	
	Send Clive last correspondence with Paolo	
	Highlight at SCAR Biology conference the work we intend to do at Darwin	
	Follow up feedback from Berry re frozen lakes at Beardmore	
	Undertake a lit review for southern sites that could be visited by LGP	
	Ensure the AWS data has metadata	
	Talk with Anna about retrospective metadata collection for LGP and then go to individual LGPers	
	Find out charges per page for colour	
	Email list of contributors to LSSC	
	Inform David Walton of the choice of Guest Editors	
	Draft letter to contributors outlining timing and expectations etc. Check over with LSSC before sending	
	Report back to LSSC on the SCAR symposium	
	Include LSSC lunch at conference	
	Give SCAR presentation at LGP workshop in July so that input can be given before the SCAR symposium	
Add LGP workshop agenda to the conference announcement.		
Talk further on the AWS project with Wendy Lawson		

	Follow up with what happened with READER – John Turner?	
	Include the points on LGP progress in LGP workshop agenda	
	Look for Northern RiSCC url to put on website and forward to LSSC	
	Send Megan Gus and Rachel's address	
	Put minutes on LGP website and let LGPers know	
<b>Dean</b>	Chase up Polly Penhale re LTER AWS at Hallett.	
	Send Vonda Fred Davy's bathymetric map of the TNB area	
	Look into VHF line-of site downloads from AWS	
<b>Megan</b>	Talk to Mauro about upkeep on Hallett AWS	
	Follow up with Jackie if she is in touch with Diana Wall re collaboration at Darwin	
	Follow up with Mauro to see if he has interests in the Darwin	
	Check status of Seabee Hook moisture data to see if it can be included on the LGP website. If not (because still needs to be published) , ensure there is metadata on it	
	Talk about the AWS project with Dave Campbell	
	Talk with Mauro about potentially using his AWS data too, and if he would want to be involved in some kind of student supervision.	
	Write thank you letter to Gus and Rachel. Cc Lou	
<b>Jenny</b>	Contact Berry again to see how collaboration can be formed so he can have something in his application about work with NZ.	
	Identify work to be done on Lake Wilson by her group	
<b>Clive</b>	Follow up where things are with Paolo Cavaccini	
	Follow up with John Priscu re his intentions for work at Lake Wilson	
<b>Allan</b>	Send Shul the references for the Barrett Glacier area	
	Send Shul the info on the DFG Antarctic Meeting (?) so it can be circulated and put on the LGP/ Ant NZ web site	
<b>All LSSC</b>	Identify what the critical questions we would be looking to address with the proposed AWS project	

### 1. Action Items from last meeting outstanding:

- **Shul:** Look at non-LGP site work that can be included in LGP:  
Decided to put this on hold as this would involve a lot of time and effort. Suggested that this kind of review work would come out of LGP-related papers, which would presumably review past work undertaken in that area of study.
- **Dean:** Talk to Scot Borg about the possibility of keeping the LTER AWS at Hallett.  
Dean has talked to Scot about this and he said that Polly Penhale was the one to contact. Dean has contacted Polly, but has heard nothing back yet. Will keep trying.
- **Dean and Clive:** Find out about likelihood of having satellite telemetry on the AWS.  
Both have come up with the fact that this is cost prohibitive for our needs as the link for data needs to be of a higher quality than that for speaking. This means that current AWS (eg Darwin) would have to be downloaded manually. Is a cost to Ant NZ, but would preferably be linked with a science visit too. But, do agree that the remoter the site, the more likely we'd have to look towards telemetry.
- **Clive:** Find out how LGP links formally with SCAR under the EBA.  
This will be done at the SCAR Biology conference in Curitiba, Brazil, July 2005. Here, RiSCC will formally be folded into EBA, and LGP can highlight its links with EBA. Preferable to stay separate from EBA though.

<b>Dean:</b> Chase up Polly Penhale re LTER AWS at Hallett.
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### 2. Iceberg situation and potential influence on LGP operations

- B-15 is moving north past the Drygalski ice tongue
- Ant NZ treating things as business as normal, but keeping an eye on the situation.

### 3. Review of 04/05 Season

- K043 Ken Ryan and K018 Mary Sewell were the only marine researchers. They both had a successful season of sampling.
- K024 Allan Green: managed to get to most of their requested sites down Edisto Inlet, but didn't get to Crater Cirque, or sites around Moubray Bay, due to very rough sea ice conditions. Despite this, did get some good samples, found some new mosses and lichen, mapped growth rates in sample plots, set up new sample plots and found plots set up in 1964 that they hadn't surveyed before (hope to find photos of these plots from the original researcher). Good gas exchange work undertaken through the season. Allan's team has 2 upcoming papers; one on GPS work from the past 2 seasons, and 1 on his Hallett work undertaken in 1999.

- K123 Jackie Aislabie: Dave Campbell and student Erica Hofstee went up to start work on soils and hydrology of Seabee Hook. Erica stayed for the rest of the season and Megan Balks went up for some days in January. Very different season to last year with less melt due to less snowfall. Were not able to monitor surface water, but did get groundwater measurements. Will prepare a soil map and characterisations of Hallett soils.
- K122 Phil Lyver: Penguin population dynamics work.
- LTER: snow pit sampling on Towles Glacier and continued work on Hallett soils.
- K002 LGP in Darwin area: AWS (including soil moisture probes) successfully set up in Central Valley location (between Lake Wilson and Diamond Glacier). Metadata can be found on the LGP website.
- K028 Ian Hogg: Spent 1 week in the Central Valley area of the Brown Hills. Found less vegetation than in the Dry Valleys or the Beardmore Glacier area. Very dry area as most precipitation is blowing snow. But did find lichen in holes in granite, and some moss. Soil samples were taken for Diana Wall and Ashley Sparrow. Not sure if some got to Jackie Aislabie. Did find small mites by extraction methods that were the size of the mite eggs found at Cape Hallett. Not many endoliths found either.

<p><b>Shul:</b> Find out if any Italian biologists visited Hallett this year.</p>
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<p><b>Shul:</b> Find out if Jackie got any Darwin soil samples from Ian Hogg</p>
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#### 4. Plans for 05/06 season

Planned events at Hallett (not all LGP related) are:

- K081 Cummings: NIWA and Italian diving and marine research
- K066 Marshall: Fish and nematode studies
- K024 Green: Continued moss and lichen work
- K029 Banks: Sampling of nearby penguin colonies
- K122 Lyver: Penguin population dynamics
- K081 Hawes: Inland aquatic ecosystems
- K021 Farrell: Sampling of Cape Adare huts
- LTER not back at Hallett this coming season, but do need to work out what will be done with their AWS. Thomas Nylen pointed out that ideally some instrumentation needs to be swapped out for calibration purposes. Need to follow up avenues of maintaining this AWS, in the hopes that NSF will agree for it to stay there.

Darwin AWS:

- Ideally would like to download AWS this season to ensure that it is recording data properly.

**Shul:** Find out about getting GPS base station at Hallett for more precise GPS measurements.

**Shul:** Ask Italian AWS contacts if they would be willing to take on the maintenance of the Hallett AWS

**Megan:** Talk to Mauro about upkeep on Hallett AWS

**Shul:** Check with Thomas if NIWA moisture sensors could be linked onto LTER AWS data logger if it stays at Hallett (otherwise Megan would like the sensors back!)

**Shul:** Request Koo2 helo time to download Darwin AWS in 05/06 preferably with a NIWA tech.

## 5. Italian and US Collaborations:

Noted who various people are in touch with:

- US:
  - Berry Lyons (Jenny Webster-Brown and Nancy Bertler)
  - Diana Wall (Jackie Aislabie)
  - John Priscu (Clive Howard-Williams)
- Italians:
  - Nicoletta Cannone (Allan Green)
  - Paolo Cavaccini (Ian Hawes)

**Clive:** Follow up where things are with Paolo Cavaccini

**Shul:** Send Clive last correspondence with Paolo Cavaccini

## 6. Discussion of future sites

Terrestrial work at Darwin:

- Ant NZ agreed to support terrestrial work at Darwin area in 06/07 and 07/08
- Jenny and Berry discussing possible avenues of collaboration
- John Priscu looking to have a significant camp on Lake Wilson
- Andrew Fountain has inquired about possible work on the glaciers in the area.
- Martin Sharp's group in touch with Ashley Sparrow re work in Darwin and possible exchange.
- Need to follow up on international collaborations so these can be highlighted in any support applications to the various Antarctic programmes

**Jenny:** Contact Berry again to see how collaboration can be formed so he can have something in his application about work with NZ.

**Jenny:** Identify work to be done on Lake Wilson by her group

**Megan:** Follow up with Jackie if she is in touch with Diana Wall re collaboration at Darwin.  
**Megan:** Follow up with Mauro to see if he has interests in the Darwin  
**Clive:** Follow up with John Priscu re his intentions for work at Lake Wilson  
**Shul:** Highlight at SCAR Biology conference the work we intend to do at Darwin

Marine Work at TNB:

- Vonda was contacted by Mary Sewell, Ken Ryan, Craig Marshall, Miles Lamare and Clive Evans to express their interest in undertaking marine work in the TNB area for the 06/07 season at least. Concern was expressed by some that the terrestrial and marine components were diverging and thus wouldn't be collecting data concurrently at the same site.
- LSSC point out that AWS data is one baseline measurement that is at least being taken concurrently at both sites.
- Also want to highlight that TNB will be re-visited in the future as a joint marine/terrestrial site for the LGP.
- As the LGP is a framework for the science events to work from, it has still turned out well that the marine events are talking together towards working in the TNB area for 06/07 season. All this work is still relevant to the LGP, and should be considered as such.
- Clive happy to talk more with Ant NZ about logistics and LGP if needed.
- Would be interesting to study the effect of the B-15 iceberg scours as a T<sub>0</sub> for studying colonisation rates.

**Dean:** Send Vonda Fred Davy's bathymetric map of the TNB area.

Future Timetable:

Year	05/06	06/07	07/08	08/09	09/10	10/11	11/12
<b>Marine</b>	Hallett	TNB	TNB	Granite	Granite		
<b>Terrestrial</b>	Hallett	Darwin	Darwin	Granite	Granite	Southern-most site?	Southern-most site?
<b>Other</b>		UNCLOS surveying?	IPY CAML MCM Sound LTER?	MCM Sound LTER?	MCM Sound LTER?	MCM Sound LTER?	MCM Sound LTER?

- Looking at bringing marine and terrestrial back together at Granite Harbour in 08/09. Much interest from both terrestrial and marine groups.
- Could complement the MCM Sound LTER well.

- Suggest going to the furthest south site after Granite Harbour. Could potentially do reccies from the Darwin site?
- Maybe look at putting in an AWS round here from Darwin too?
- How exactly do we pick a site for the farthest south?
- Discussed that we seem to have now dropped the year-off concept. All agreed that this was good to keep the project moving and within a manageable timescale.
- Want to highlight that the above timetable is a draft and open for discussion.

**Shul:** Undertake a lit review for southern sites that could be visited by LGP

**Shul:** Follow up feedback from Berry re frozen lakes at Beardmore

**Allan:** Send Shul the references for the Barrett Glacier area

**Dean:** Look into VHF line-of site downloads from AWS

## 7. Data Management

- Discussion regarding retrospective metadata collection. Is a bigger picture question for Ant NZ, but asking here if we should be trying to collect retrospective metadata for work relating to the LGP (ie starting with a defined target).

**Shul:** Ensure the AWS data has metadata

**Megan:** Check status of Seabee Hook moisture data to see if it can be included on the LGP website. If not (because still needs to be published), ensure there is metadata on it.

**Shul:** Talk with Anna about retrospective metadata collection for LGP and then go to individual LGPers.

## 8. Special Edition Publication

### a. Finances:

- Have had contributions from NZ government to cover some costs of publication (MFAT and MORST), also potentially from Trans Antarctic Expedition fund (Arnold Heine). In addition, have agreement from some NZ contributors, and the US and Italian contributors.
- So, basically have the funds to go ahead with this.
- Note that charges for colour pages will have to be payed as an additional cost by those who use colour.

### b. Contributors of papers:

- Currently have 18 contributors (including 4 Italian and 2 US)
- May be too many for the edition, but all to be peer reviewed so some may not make it through this. If we do have too many, LSSC will have to discuss which should stay in the special edition. Any extras could be published in following Antarctic Science issues, which would at least continue the coverage of the LGP.

- Reminder that papers need to fit within the framework of the LGP and refer to one or more of the key questions.
- Editorial to set out the key questions.
- c. Guest Editorial**
  - Antarctic Science has asked for the appointment of some Guest Editors. Pointed out the responsibilities of the Guest Editor. Agreed that the LSSC could undertake this role.

**Shul:** Find out charges per page for colour  
**Shul:** Email list of contributors to LSSC  
**Shul:** Inform David Walton of the choice of Guest Editors  
**Shul:** Draft letter to contributors outlining timing and expectations etc. Check over with LSSC before sending.

## 9. SCAR Biology Symposium

- Nine NZers going to the conference
- Shul to present a talk on LGP, and represent LGP at the RiSCC workshop.
- Suggest that Shul could present some general results in referring to the key questions.
- Next year's SCAR conference in Hobart around same time (July 2006)

**Shul:** Report back to LSSC on the SCAR symposium  
**Shul:** Give SCAR presentation at LGP workshop in July so that input can be given before the SCAR symposium.  
**Allan:** Send Shul the info on the DFG Antarctic Meeting (?) so it can be circulated and put on the LGP/ Ant NZ web site.

## 10. LGP at the Annual Antarctic Conference

- Agree that it would be good to have an LGP dedicated presentation session at the conference.
- All agree that we need an LGP workshop as part of the Ant NZ conference.
- Things to potentially cover in the workshop:
  - Discussion on methodologies
  - Special Edition publication
  - Future Science
  - Bring in new LGPers
  - Shul to present SCAR talk
  - Look at the key questions and identify which ones people are addressing.
  - Ask for feedback on the LGP website
  - Discuss proposed timetable
  - Importance of collecting current and retrospective metadata.
- Hold an LSSC meeting over lunch after the workshop.

**Shul:** Add LGP workshop agenda to the conference announcement.  
**Shul:** Include LSSC lunch at conference.



## 11. LGP Website

- Shul pointed out that the LGP website has been updated with:
  - Hallett AWS data
  - LGP metadata from 03/04 (04/05 to come shortly)
  - Site descriptions, photos and video clips of the Darwin Glacier area
  - Metadata for the Darwin Glacier AWS

## 12. Special Projects

### AWS Project

- Referred to a paper submitted by Shul highlighting the various US, Italian and Kiwi AWS data that is available to potentially synthesise and use for the purposes of furthering the LGP key questions.
- Have agreement from US and Italian AWS contacts that something could be done with the data and that they would be willing to cooperate in some way.
- Enough information to potentially be a PhD project. Need to find someone who would be willing to fund a project for this.

**Shul:** Talk further on the AWS project with Wendy Lawson

**Megan:** Talk about the AWS project with Dave Campbell

**Megan:** Talk with Mauro about potentially using his AWS data too, and if he would want to be involved in some kind of student supervision.

**Shul:** Follow up with what happened with READER – John Turner?

**LSSC:** Identify what the critical questions we would be looking to address with such a project are.

## 13. Progress of LGP

- Want to go through the key questions to see which we're addressing and to make sure they are all still relevant. Will also help us identify any gaps. Something for the conference workshop.
- Clive brought up the methodologies outlined by RiSCC and wondered if we should look more closely at these for a guide. Then data can be compared more easily. Again something for the LGP workshop.
- Further to the baseline measurements we're taking, should we better define variables we want to try and measure at each site? E.g. moss/lichen growth rates?
- Highlights the importance of having good metadata.
- Need to ensure that key parameters continue to be measured throughout LGP.

**Shul:** Include the points on LGP progress in LGP workshop agenda.

## 14. Other

### a. Northern RiSCC

- Conducting a 1 yr latitudinal gradient project
- 5 countries using 3 vessels

### b. Climate Change Workshop

- Ant NZ looking to hold a climate change workshop next year
- Official announcement of this in July
- Would like to see LGP presented in this.

### c. Recognitions

- Megan suggested the LSSC send a letter of thanks to Gus and Rachel for this year's support. Agreed to. Cc to Lou.

### d. New LSSC Member

- Welcomed Jenny Webster-Brown on board the LSSC.
- Thanks for organising the meeting facilities in Auckland and the last minute teleconference (due to unforeseen travel circumstances!)

### e. Minutes

- To be circulated by Shul after agreement from LSSC.

**Shul:** Look for Northern RiSCC url to put on website and forward to LSSC

**Megan:** Write thank you letter to Gus and Rachel. Cc Lou

**Shul:** Send Megan Gus and Rachel's address

**Shul:** Put minutes on LGP website and let LGPers know