

**LSSC Meeting Minutes**  
**Thursday 19<sup>th</sup> March 2009, 10am – 3.00pm**  
**Antarctica New Zealand**

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<b>PRESENT:</b>	Megan Balks	University of Waikato (LSSC Chairperson)
	Vonda Cummings	NIWA
	Mark Stevens	South Australian Museum
	Jenny Webster-Brown	University of Auckland
	Clive Howard-Williams	NIWA
	Shulamit Gordon	Antarctica New Zealand
	Ed Butler	Antarctica New Zealand (Ex-Officio)
	Lou Sanson (For item 5)	Antarctica New Zealand

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**Actions from LSSC Meeting**

LSSCer	Action Item	Status
<b>Shul</b>	AWS calibrations need to be sorted. Need to keep calibrations for the future. Same person to retrieve data. Consistency with AWS set up and download. Need to check this with Wisconsin, LTER, USDA and NIWA.	From March 08 Mtng
	Beardmore AWS? Is there one? Where would we put it? Where is nearest AWS to Beardmore?	From March 08 Mtng
	Advertise again the potential for an AWS project if someone finds a suitable student to do this. Point out that this is not just for NZ students – anyone could use the data.	
	See about a scholarship for this AWS work.	
	Find out who was doing the AWS work to date.	
	Circulate link round to LAT-ECO Byrd Polar Research Centre report.	
	Identify potential sites north of MZS for marine and terrestrial work. Conduct literature review where needed. Also look at sites around Hallett/Adare.	From March 08 Mtng
	Follow up EU and German funding possibilities.	
	Add links on LGP and Ant NZ site to SCAR scholarships. On LGP site – show what projects could be worked on with this scholarship.	
	Follow up on unified proposal for Beardmore. What science and specific locations? Any collaborations with the US?	
	Send email out to alert SCAR scholarship deadline.	
	Ask Jenny if it's OK to put Darwin workshop proceedings on the LGP website.	
	Send Clive a copy of the proceedings.	
	Complete literature review for Southern extreme sites (not just Beardmore)	
Re-work the 5 year plan and send to Erik, Lou, Ed and LSSC.		

	Check with Ken and Mary when they want to be at New Harbour	
	Indicate to the LGP community that New Harbour could be a combined marine and terrestrial site.	
	Work out costs of 08/09 Granite Harbour and Darwin support.	
	Update LGP Science and Operational Overview. Circulate draft to LSSC for comment.	
	Make sure that New Harbour is added to the official list of sites so there are now 6 sites identified along the Victoria Land Coast. Add New Harbour to study site map.	
	Remind LGPers going to Sapporo to put LGP logo on poster	
	Provide 1 slide on LGP for people to put in their Sapporo presentation (get Megan to check)	
<b>Shul Again!</b>	Follow up on sponsors for special edition publication	
	Let <i>Antarctic Science</i> know about Guest Editors and check that it is OK to wait till December to assign reviewers to each paper.	
	Ask EBA id there would be travel funding to support an invited speaker.	
	Advertise LGP workshop – call for presenters.	
	Make sure New harbour is discussed in the workshop.	
	Could do an LGP session in the conference if there are enough LGPers presenting.	
	Keep in mind that there is a spare meeting room if a parallel session is warranted.	
	Identify the work going on so far on gradients in the other countries.	
	Make a formal link between LGP and the Biocomplexity project.	
	Add Korean delegate to LGP mailing list.	
	Check with Annick Wilmotte about being added to the LGP email list to make connections with the Belgians.	
	Contact Andrea Pellegrini to see what their AWS plans are for the future.	
	Beardmore AWS actions from last meeting.	
	Look into getting Darwin AWS data into Wisconsin AWS project database.	
	Ensure that more ground time is give for AWS downloads especially at the Darwin.	
	Check with mark Gall when the Darwin AWS needs to be downloaded next.	
	Look into an LGP article in the AAD Magazine.	
	Draft letters of thanks to Brian, Helen and Blake for support at LGP camps. Send to Megan to mail.	
	Ask Jeb, Diana, Byron and Berry if one of them would join the LSSC to increase communication between NZ and US on the LGP progress.	

	Set next LSSC teleconference meeting in August 2009 after Sapporo.	
<b>All</b>	To think of appropriate invited speaker to talk about marine/terrestrial ecosystems. Send Shul ideas.	
<b>Ed</b>	Ant NZ to keep in touch with NSF programme managers re Beardmore support.	
	Follow up FP7 funding.	
	See if it's worth bringing in Australia into the UK/NZ proposal re marking the heroic age with a collaborative gradients approach.	
<b>Mark</b>	To see the extent to which PLOS and BMS take review articles.	From March 08 Mtng
	Ask Dana if it is Ok for him to circulate the ICEMATE proposal round the LGP (note that Shul has the proposal – just need approval to circulate it).	
<b>Clive</b>	Write to Warwick Vincent re exchange of AWS data.	
<b>Jenny</b>	Ask Gateway Antarctica if they have an AWS project going on	
<b>Megan</b>	To follow up the LGP/Biocomplexity link with Craig Cary at Waikato. Let Shul know when this is done.	

## 1. Apologies and confirmation of agenda

- Apologies from Erik Barnes

## 2. Action Items from August 2008 Minutes

- AWS Project
  - Very important to get some work done on the AWS data – fundamental information.
  - Could have a scholarship to target a Masters level project - 5-10k for 1 year. Could possibly target an Ant NZ scholarship towards this?
  - Shouldn't be hard to find CRI supervisors – e.g. James Renwick or Charles Pearson at NIWA.
  - We should approach students and let them know the idea is there.
  - Advertise again the potential for an AWS project if someone finds a suitable student to do this.
  - Someone is doing some work with this data but not sure who.
  - Could possibly also make this link with the Arctic AWS data.

**Jenny:** Ask Gateway Antarctica if they have an AWS project going on.

**Shul:** Advertise again the potential for an AWS project if someone finds a suitable student to do this. Point out that this is not just for NZ students – anyone could use the data.

**Clive:** Write to Warwick Vincent re exchange of AWS data.

**Shul:** See about a scholarship for this AWS work.

**Shul:** Find out who was doing the AWS work to date.

- Granite Harbour literature review to be taken off action list. Not done, and the time when it would have been useful has passed.
- Still to do the literature review of sites north of MZS. First locate potential sites, then do the lit review. Mark suggesting a site West of Cape Adare (Robertson's Bay?)
- Sent out a reminder email re Australian cooperation agreement
- Review article for PLOS – better to wait till after the LGP Special Edition of *Antarctic Science* is published. Would be good to target this to a high impact journal.
- Links between Jenny Webster-Brown and LTER have been made through sharing of samples and analyses.
- Still good to follow up on funding possibilities from Germany and EU.
- Mark has links with France and Belgium through the EU.
- Would be good to encourage LGP students to go for the SCAR scholarship.
- Clive wrote letter of thanks to Lou for support of the LGP.

**Shul:** Identify potential sites north of MZS.

**Shul:** Follow up EU and German funding possibilities.

**Ed:** Follow up FP7 funding.

**Shul:** Add links on LGP and Ant NZ site to SCAR scholarships. On LGP site – show what projects could be worked on with this scholarship.

**Shul:** Send email out to alert SCAR scholarship deadline.

### 3. Report back from NZ LGP Meetings

- Marine – Vonda Cummings
  - Vonda Cummings convened an LGP marine meeting attended by Ken Ryan, Craig Marshall, Mary Sewell, Andrew Martin. Apologies from Vic Metcalf.
  - Gave summaries of research and major findings.
  - Want to write a marine synthesis paper for the LGP special edition. Vonda to write draft of this.
  - Want to start to link marine and terrestrial findings. Committee should push for this. Could be the theme for next LGP workshop.
  - Ken and Mary still keen to go to New Harbour – funds allowing.
  - Talked about sites further north, logistics allowing. Keen in principle, but diving needs to be ship based when far north.
  - No major marine collaborations with the UK (an action from last LSSC meeting).
  - Meeting very useful to find out what people are up to. Would be good to do this again. October worked well.
  - All research is complementary – no overlap.

**Shul:** Circulate link round to LAT-ECO Byrd Polar Research Centre report.

- Terrestrial – Jenny Webster-Brown
  - Jenny convened this 2-day workshop on focussed on Darwin science.
  - Attended by Peter Almond, Fiona Shanhun, Carol Smith (Lincoln), Mark Gall, Brian Sorrell (NIWA), Allan Green, Malcolm McLeod, Brian Storey, Briar Waite, Shulamit Gordon.
  - Presented science results and plans for up-coming research.
  - Several areas of overlap identified and synergies made e.g land exposure ages and terrestrial ecology.
  - Also discussed southern extreme site and the importance of the Beardmore area.
  - Proceedings of the workshop are available.
  - Another meeting like this in 2010 would be good.
  
- General feeling that there is still more work to be done at a northerly site to build on work done at Hallett. Need to get away from the cape and the penguin colony. Could Hallett be a stepping stone for more Northerly sites?

**Shul:** Ask Jenny if it's OK to put Darwin workshop proceedings on the LGP website.

**Shul:** Send Clive a copy of the proceedings.

#### **4. Re-cap of 08/09 Season**

- Granite Harbour
  - Successful season of support at Granite Harbour for 6 weeks in November and December.
  - LGP camp on sea ice supported Vonda, Ken and Mary.
  - Ken and Mary to return in 09/10.
- Darwin
  - The season was not as successful as hoped due to a variety of planning and weather reasons.
  - Many groups didn't manage to complete their science objectives.
  - Groups have requested to finish their work in 09/10.
  - Camp was great and well managed.
  - Although there were problems with camp location, still agree that the LGP camp model is the way to go to help foster the inter-disciplinary collaborations. Huge benefits of having a group camp. Got some classic LGP interaction this season.
  - Ant NZ having a review of the LGP Darwin planning and support to see how we can learn for future camps/operations like this.

#### **5. 5 Year Plan (science and logistics)**

- Lou outlined the position that Ant NZ is in regarding the current economic climate. Basically need to do more with less. So looking to streamline processes, maintain capacity and support high level science.
- Darwin: See Item 4 above.

- Extreme Southern Site:
  - Want to link in with the US to go to this site.
  - US will call for expressions of interest this year for support in 11/12. Looking for quality proposals to go through the peer review process.
  - Could also utilise Pole traverse route for supply.
  - Ed to work closely with Scott Borg on this.
  - Ed and Erik are the main points of contact with USAP on this.
  - Shul has presented Erik with 5 year plan and costing plan for NZ work in Beardmore.
  - US and NZ proposals should be linked to show synergies and linkages. Need a more coordinated effort. Literature review done now should help with this.

**Ed:** Keep in touch with US programme coordinators on Beardmore progress.

**Shul:** Complete literature review for Southern extreme sites (not just Beardmore)

- New Harbour
  - This is still a desired site by Ken and Mary. This will be their most southerly site.
  - The site ties in nicely with the MCM-LTER site in the Dry Valleys
  - Sam Bowser from USAP working at this site on impacts of glacial runoff on the marine environment.
  - Could be a good site to bring terrestrial and marine back together at one site. Possibly start in 11/12 as an alternate to Beardmore?
  - Indicate to the LGP community that New Harbour could be a combined marine and terrestrial site.
  - Make sure that New Harbour is added to the official list of sites so there are now 6 sites identified along the Victoria Land Coast.

**Shul:** Re-work the 5 year plan and send to Erik, Lou, Ed and LSSC.

**Shul:** Check with Ken and Mary when they want to be at New Harbour

**Shul:** Indicate to the LGP community that New Harbour could be a combined marine and terrestrial site.

**Shul:** Work out costs of 08/09 Granite Harbour and Darwin support.

**Shul:** Update LGP Science and Operational Overview. Circulate draft to LSSC for comment.

**Shul:** Make sure that New Harbour is added to the official list of sites so there are now 6 sites identified along the Victoria Land Coast.

## 6. SCAR Biology Symposium – Sapporo

- There will be no LGP workshop at Sapporo but LGP papers to be highlighted.
- LGP Presentation/Poster
  - Want to use this to show the potential links of LGP with other groups around Antarctica. Good opportunity to get in touch with other groups and start working on making more concrete links.

- NZ LGPers going:
  - Angela McGaughran (NZ SCAR Biology travel award), Dana Clark ((NZ SCAR Biology travel award), Roberta Farrell, Miles Lamare, Allan Green (?), Eileen Koh, Mehgana Rajanahally, Lisa Bryant, Vonda Cummings (?), Shul Gordon, Vic Metcalf, Craig Cary, Ian Hogg, Mary Sewell (?), Drew Lohrer (?).

**Shul:** Remind LGPers going to Sapporo to put LGP logo on poster

**Shul:** Provide 1 slide on LGP for people to put in their Sapporo presentation (get Megan to check)

## 7. *Antarctic Science* Special Edition II

- Contributors:
  - Have 29 papers on the list of contributors. Not all are confirmed. Includes authors from NZ, UK, US and Italy.
- Funding:
  - There is \$3600 left over from the first edition
  - Shul has secured US\$3000 from EBA.
  - Royal Society of NZ and TransAntarctic Association have declined funding.
  - Still pending: MoRST, MFAT, FRST, MFish
  - All contributors know that they may have to pay at least NZ\$1500 per contribution, but hopefully this will reduce with further sponsorship.
- Guest Editors:
  - The LSSC will be used as Guest Editors again.
  - Will divide up the papers once they are submitted after December submission deadline.

**Shul:** Follow up on sponsors for special edition publication

**Shul:** Let *Antarctic Science* know about Guest Editors and check that it is OK to wait till December to assign reviewers to each paper.

## 8. Need for Workshop at Ant NZ 2009 Conference?

- Definitely want to have an LGP workshop at this conference to bring the marine and terrestrial groups back together.
- Theme suggested at the last LSSC meeting was: Systems thinking in general ecological principles across marine and terrestrial boundaries.
- May be to early to have this theme, but it can at least be introduced.
- Want to encourage people to meet and share their work.
- Maybe have a guest speaker to talk along the lines of the theme.
- Good time to highlight the New Harbour site as a place for marine and terrestrial to come together at one site again.
- Try for a 2 hour workshop (9-11am) with 5 minute presentations from LGPers (as has been done before under each Key Question). Then have a key speaker, who could also present a longer keynote at the conference. Also give an update of where LGP is at in terms of what sites have been supported and special edition.

- There is a spare room at the conference venue if we want to have parallel sessions.

**All:** To think of appropriate invited speaker to talk about marine/terrestrial ecosystems. Send Shul ideas.

**Shul:** Ask EBA id there would be travel funding to support an invited speaker.

**Shul:** Advertise LGP workshop – call for presenters.

**Shul:** Make sure New harbour is discussed in the workshop.

**Shul:** Could do an LGP session in the conference if there are enough LGPers presenting.

**Shul:** Keep in mind that there is a spare meeting room if a parallel session is warranted.

## 9. NZ/UK LGP collaboration for heroic age celebrations

- Proposal submitted by Clive and Shul and send through the UK contacts. Nothing more heard on this to date.
- Could Australia be involved in this too? Seems that they are also doing their own heroic age celebrations for Mawson.

**Ed:** See if it's worth bringing in Australia into the UK/NZ proposal re marking the heroic age with a collaborative gradients approach.

## 10. LGP direction

- Are we going in the right direction?
  - General positive feeling that we are still going in the right direction.
  - The project has gained momentum.
  - See that there will be an end to the LGP when the main sites have been visited. Then need to see if the aims/questions are re-looked at and have a new project. Would still be good to get another far North site in before we finish. It could turn into the greater Antarctic Gradients project with other countries around the continent.

**Shul:** Identify the work going on so far on gradients in the other countries.

- Areas for improvement?
  - Suggestion from Rod Seppelt re selecting a few more sites to study, then with the knowledge we have – incorporating all this into a model that will link the LGP transect N-S as a predictor of potential climate change effects. This links in well with the biocomplexity IPY project that is led by Craig Cary and Allan Green. Committee agreed that this was certainly a good direction to be going in, and the next logical step for LGP.
  - New Harbour could be 1 of these additional sites.
  - The Southern Extreme sites could be used to validate this model.
  - Modelling will definitely be beneficial to the LGP.

**Shul:** Make a formal link between LGP and the Biocomplexity project.

**Megan:** To follow up the LGP/Biocomplexity link with Craig Cary at Waikato.

- Identify new areas of science we need to include?
  - E.g. Modelling of cloud formation – influences lichen and soil microclimate.
  - Would also be good to do an analysis of sea ice cover along the Victoria Land coast using satellite imagery.
  - Work on terrestrial –marine interactions (see section on LGP Workshop)
- New collaborations?
  - Australia has good links with France does good ecosystem work. Could link in with them. Especialyl to do the work West of Cape Adare.
  - Clive, Ed and Shul gave a presentation on the LGP to a Korean science delegation who visited Christchurch. There was interest in the LGP particularly in specific areas of work that weren't already represented in the LGP.
  - Mark has links through Belgium.

**Shul:** Add Korean delegate to LGP mailing list.

**Shul:** Check with Annick Wilmotte about being added to the LGP email list to make connections with the Belgians.

- ICEMATE – the next EBA
  - Stands for: Impact and Change in East Antarctic Marine and Terrestrial Ecosystems; the Centennial Australasian Antarctic Expedition and Beyond.
  - This is the next main biology project put forward by AAD. Yet to be approved.
  - Involves 6 years of ship based research along the East Antarctic coast using helo and small boat ops to access land and near-shore areas.
  - Could be used as a way of linking with the AAD and working West of Cape Adare.
  - Mark Stevens, Ian Hogg and Clive Howard-Williams are listed as NZ collaborators.

**Mark:** Ask Dana if it is Ok for him to circulate the ICEMATE proposal round the LGP (note that Shul has the proposal – just need approval to circulate it).

## 11. LGP Automatic Weather Stations

- Hallett AWS:
  - Currently data logger for soil probes and AWS as not linked. Shul looked into the possibilities of them being linked, and it seems best to keep them on separate systems. Also don't want to move the soil moisture probes. Soil moisture logger will hold 18 months of data.
  - AWS last downloaded Nov 07 and ARGOS transmitter added. Soils were not downloaded then.
  - AWS to be downloaded and maintained in Nov 09.

- Ian Hawes to supply info to download soil moisture logger for Nov 09 visit.
- Should check in with the Italian programme to see what effect their programme cuts will have on their AWS project.

**Shul:** Contact Andrea Pellegrini to see what their AWS plans are for the future.

**Shul:** Beardmore AWS actions from last meeting.

**Shul:** Look into getting Darwin AWS data into Wisconsin AWS project database.

**Shul:** Ensure that more ground time is give for AWS downloads especially at the Darwin.

**Shul:** Check with mark Gall when the Darwin AWS needs to be downloaded next.

## 12. Data Management

- Waiting for Ceisha to finish her work on the metadata – then will update all the metadata links on the LGP website.
- LGP data management/synthesis: need to keep this on the radar.

## 13. Status of Science Collaborations in the Ross Sea region

- USA: Mainly through the LTER group
- Italy: Mainly through Vonda and Mark Stevens
- Sweden: Ant NZ looking for a dedicated marine cruise on the Oden in the future. It has a well set up facility for science.

## 14. Other Items

- AAD publish an Antarctic Magazine – could we have something on the LGP and its framework in this? Show the links with Andrew McMinn, Rod Seppelt and John Gibson.
- LGP given coverage in the EBA Newsletter and the SciencePoles website.
- Would like to write a thank-you letter to Helen, Blake and Brian for support at the LGP camps.
- Would it be good to have a US MCM LTER representative at the LSSC meeting on the phone, even for an hour? Ask them if one would be willing to join in. Best way to get first hand info on where they are at with their work plans.
- Next LSSC meeting to be a teleconference in August 09 after Sapporo conference.

**Shul:** Look into an LGP article in the AAD Magazine.

**Shul:** Draft letters of thanks to Brian, Helen and Blake for support at LGP camps. Send to Megan to mail.

**Shul:** Ask Jeb, Diana, Byron and Berry if one of them would join the LSSC to increase communication between NZ and US on the LGP progress.

**Shul:** Convene LSSC teleconference in August after Sapporo.