

Workshop

“The coastal fog geo-ecosystems in the Chilean-Peruvian Desert: understanding biosphere-atmosphere interactions”

November 25th to 27th, 2019
Alto Patache - Atacama UC Research Station

Circular #2

This Circular #2 presents the final program of the workshop. The abstracts received were divided into two thematic sessions: the first on fog climatology, meteorology and fog as a water resource; the second on fog ecosystems.

Given the large number of participants and in honor of the time available, we have divided each session into oral keynote talks and into posters presentations. Please review the guidelines for oral and poster presentations at the end of this circular.



Scientific Program

Monday 25.11

11:00 – 12:00	<p>Welcome reception and opening words</p> <ul style="list-style-type: none"> - Juan Luis García (Director Centro UC Desierto de Atacama) - Pedro Bouchon (Vice-President of Research PUC) - Alexander Siegmund (Heidelberg University of Education / Heidelberg University – ERANet project coordinator)
12:00 – 13:00	<p>Alto Patache – UC Atacama Desert Research Station</p> <ul style="list-style-type: none"> - Guided visit by Pablo Osses (Alto Patache Research Station Director)
13:00 – 14:30	Lunch and coffee
14:45 – 15:45	<p>Session 1. Fog climatology / meteorology / Fog water – I</p> <ul style="list-style-type: none"> - Keynote talks (see details on page 3)
15:45 – 16:30	Coffee break
16:30 – 18:00	<p>Session 1. Fog climatology / meteorology / Fog water – II</p> <ul style="list-style-type: none"> - Posters (see details on pages 3 and 4)
18:00 – 19:00	Pisco sour and cocktail
19:00	Transport to the city of Iquique

Session 1. Fog climatology / meteorology / fog water

keynotes talk: 15 min talk + 5 min discussion/questions

Moderator: Claudio Latorre

1. **The role of Alto Patache – UC Research Station in the time series datasets. Construction of the data network for fog as a water resource**
Pablo Osses, Camilo del Río, Juan-Luis García, Constanza Vargas, Alexander Siegmund
2. **Applications of coastal fog-stratus maps for management and studies of watershed dynamics and biodiversity.**
Alicia Torregrosa
3. **Meteorological Observations in the Atacama from a new climate stations network**
Jan H. Schween, Ulrich Löhnert

Posters: 2 min presentation (1-2 power point slides)

Moderator: Pilar Cereceda

1. **Environmental characteristics and fog water collection in the hyperarid Peruvian coastal desert**
M^a Victoria Marzol, Jonás Trujillo
2. **Constraining the boundary layer atmospheric conditions and circulation during recent fog events in the coastal Atacama Desert in northern Chile**
Juan-Luis García, Camilo del Río, Pablo Osses, Marcus Koch, Claudio Latorre, Alexander Siegmund
3. **Multi-year climatology of fog and low cloud occurrence in the Atacama Desert derived from satellite measurements**
Christoph Boehm, Jan Schween, Mark Meyers, Ulrich Löhnert, Susanne Crewell
4. **Analyses of local fog climatology in the coastal Chilean Atacama Desert**
Juan Carlos Pastene, Alexander Siegmund, Anne Schneibel, Camilo del Río, Pablo Osses, Juan Luis García
5. **Characteristics of the stratiform cloud in the hyperarid peruvian coastal desert based on GOES satellite images**
Jonás Trujillo, M^a Victoria Marzol

6. **Inter-annual variability and spatial changes of coastal fog and low cloud in the hyper arid Atacama Desert**
Camilo del Río, Juan-Luis García, Pablo Osses, Marcus Koch, Claudio Latorre, Alexander Siegmund

7. **Characterizing the influence of marine stratocumulus clouds on the land fog at the Atacama Desert**
Felipe Lobos, Jordi Vilà-Guerau de Arellano, Xabier Pedruzo-Bagazgoitia

8. **Investigation of the diurnal cycle of stratocumulus clouds at the northern coast of Chile**
Sarah Westbrook, Jan H. Schween, Ulrich Löhnert

9. **ET-DATA: an extensive field campaign to investigate evapotranspiration enhanced by advection in the hyper-arid Andean plateau**
Francisco Suarez, Nicole Blin, Felipe Lobos, Matías Signorio, Alberto de la Fuente, Jordi Vilà, Oscar Hartogensis

Tuesday 26.11

07:30 - 08:30	Breakfast
08:30 – 18:00	Fieldtrip to different sites Alto Patache – Oyarbide study site – Iquique
18:00 – 20:30	Dinner at the city of Iquique (not covered by the workshop)
20:30	Transport to Alto Patache

Wednesday 27.11

07:30 - 08:30	Breakfast
09:00 – 10:00	Session 2. Fog ecosystems - keynote talks (see details on pages 5 and 6)
10:00 – 10:30	Coffee break
10:30 – 11:30	Session 2. Fog ecosystems - Posters (see details on page 6)
11:30 -12:30	Open discussions on potential collaborations, possible publications, next steps, etc.
12:30 – 13:30	Lunch
14:00 – 15:00	Closing remarks & Outlook End of the Workshop
15:00	Transport to the city of Iquique / Airport

Session 2. Fog ecosystems

Keynotes talk: 15 min talk + 5 min discussion/questions

Moderator: Camilo del Río

1. **Living at the dry limits. Ecological genetics of *Tillandsia lomas* in the Chilean Atacama Desert**
Marcus A. Koch, Dorothea Kleinpeter, Erik Auer, Alexander Siegmund, Camilo del Río, Pablo Osses, Juan-Luis García, Maria Victoria Marzol, Georg Zizka, Christiane Kiefer
2. **Spatial and temporal variation of delta-15N values in modern and buried *Tillandsia landbeckii* at Cerro Oyarbide: implications for past fog variability**
Claudio Latorre, Agustín Brito, Juan Luis García, Camilo del Río
3. **Linking soil microbial composition to *Tillandsia* genetic structure**
 Cristian Almiray, Marlene Manzano, Sebastian Abades, Fernando D. Alfaro

Posters: 2 min presentation (1-2 power point slides)

Moderator: Pablo Osses

1. Remote sensing-based detection of the *Tillandsia Lomas* ecosystems in the coastal Chilean-Peruvian desert

Signe Mikulane, Julia Schumacher, Anne Schneibel, Alexander Siegmund

2. UAS-based structural stand analyses of *Tillandsia Lomas* ecosystems in the Chilean-Peruvian coastal desert

Ronja Redlich, Julia Schumacher, Anne Schneibel, Alexander Siegmund

3. Phenology of *Tillandsia purpurea* and its relationship with the presence of fog in the Desert of southern Peru.

César Luque-Fernández, Amaia Albarracín, Francisco Villasante, Anthony Pauca, Luis Villegas, Johana del Pilar Quispe

4. Associated microclimatic conditions *Tillandsia purpurea* and establishment of a Fog-point for fog events

César Luque-Fernández, Luis Villegas, Francisco Villasante, Anthony Pauca, Johana del Pilar Quispe

5. Niche versus neutral models of community organization: what do they tell us about soil microbes of the Atacama Desert?

Gerardo de Lamotte, Marlene Manzano, Fernando D. Alfaro, Sebastián Abades.

Oral and poster presentation guidelines:

Power point

Given the infrastructure conditions of the Alto Patache station (high luminosity in the conference dome during day time), we recommend the following tips for presentations (talks and poster presentations)

- We suggest presentations with the highest possible contrast
- The time limit will be enforced by the session moderator to keep the program on schedule.

Poster

- The poster format shall not exceed 120 cm high and 85 cm wide
- Bring it printed, as there are no printing options