

Mid-Conference Tour Program (Upper Maipo Valley)

Thursday 12th January 2023

Meeting point: Pontificia Universidad Católica Villarica campus (UC)

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9:00: Meet at the UC Villarrica campus hall. Introduction by the trip leader Prof Juan Pedro Martín-Vide, Universitat Politècnica de Catalunya

9:20: Bus trip to confluence Ríos Allipen and Toltén. The trip includes a short walk (15–20 min) and presentation in the field. A packed snack will be provided in the field, but attendees should carry water for themselves.

12:30. Trip back to UC Villarrica campus hall.

The site has been researched by hydraulics, geomorphologist, hydrologists and ecologists

The bed load transport at the confluence was investigated by field measurements. The main result was a very asymmetrical distribution of bed load. Further research on this site has been conducted in a physical model. The motivation for the research was the planning of a run-of-the-river power plant that finally was not built.

This trip considered also a shot visit to gravel mining river plant, typically gravel extraction from the riverbed and flood plain. This will be a topic discuss during the second part of the day that includes discussion panels on river management in Chile.



Gravel Bed Rivers 9
Villarrica, Chile
10-13 January 2023



Figure 1. River confluence Allipén and Tolten in 2022

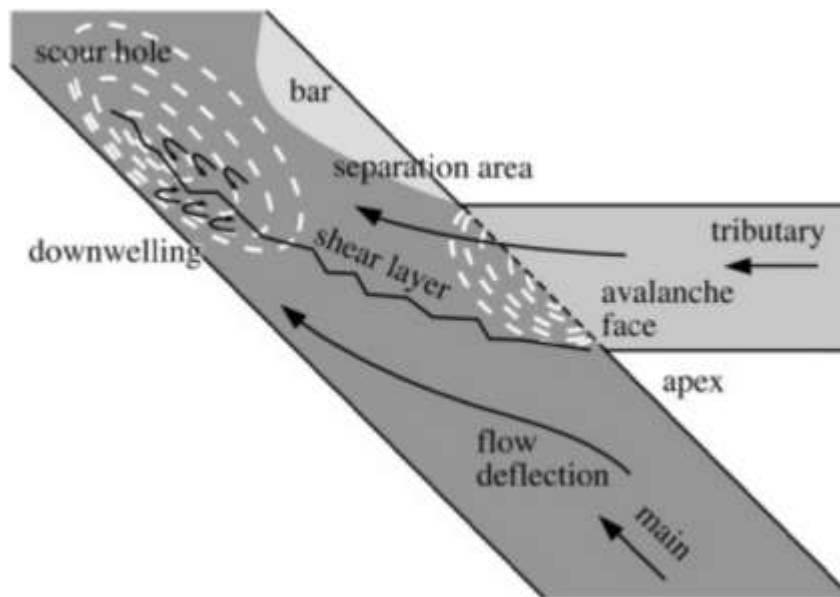


Figure 2. Conceptual representation of the river confluence (Martín-Vide et al., 2015)

References

Martín-Vide, J.P., Plana-Casado, A., Sambola, A., Capapé, S., Bedload transport in a river confluence, *Geomorphology* (2015), doi:10.1016/j.geomorph.2015.07.050