

Expedition to Pelechuco-Keara

We returned to Pelechuco and Keara where we carried out a short expedition with the objectives of collecting type specimens of the new species of the genus *Hydrocotyle* (Apiaceae) and *Oreopanax* (Araliaceae), and to take photos of these species and to inventory remnants of timberline and montane forests. The expedition was carried out from 13–22 April 2006. Six phytosociological inventories were made and 652 plants divided between vascular plants, mosses, and lichens were collected.

Personnel

Alfredo Fuentes (Responsible investigator), Moisés Mendoza (volunteer of the herbarium USZ, Apiaceae specialist), Maria Cristina López (volunteer, from the Ecology Institute), Modesto (guide from Keara), Remy Roque and his wife (guides from Pelechuco).



Panoramic view of Pelechuco, surrounded by *Polylepis triacontandra* forest (A. Fuentes).



Habit of *Hydrocotyle apolobambensis* and still undescribed species from the timberline forests at Keara Viejo (A. Fuentes).



Capitulescens of a probable new species of *Gynoxys* from the pluvial timberline forests where it co-dominates together with *Polylepis pepeï* (A. Fuentes).

Notes from the expedition

We left La Paz in the morning and arrived at night at Pelechuco (3500 m) after a 10 hours drive, we spend the night there in relative comfort in the hotel on the square. Pelechuco counts with some hotel infrastructure because it is the start or end point of the famous trekking between Curva and Pelechuco. In the close vicinity of Pelechuco a small forest remnant of *Polylepis triacontandra* (Rosaceae) exists. Pelechuco has a humid to pluvial climate, whereas the next valley to the north where Keara is located, the forest remnants are composed of *Polylepis pepeï* and this sector has an even wetter climate, pluvial to superhumid. The forest around Pelechuco may be planted or persist because of the management applied. The species of *Polylepis* spp. are the main source of firewood in the high Andean settlements.



Working in the timberline forest. From the left Modesto, Ma. Cristina López, Alfredo Fuentes and Moisés Mendoza (M. Mendoza).

The following day we left for Keara, the new road was in bad conditions because it had rained at night before and we had to cross several sections with mud and clay, and the curves proved difficult to maneuver on the slippery surface. When arriving at Keara Nuevo (3800 m) we had still some daylight left so it was time to go and look for the type material of the new *Hydrocotyle* near Keara Viejo (3600 m). We were in luck, we found an extensive colony with flowers and fruits in a forest fragment of timberline forest that is conserved near the river. We also found fruiting trees in of a new species of *Oreopanax* that we are in the process of describing.



Torrent duck (*Merganetta armata*) in the Pelechuco river (A. Fuentes).



The bridges of Madidi (M. Mendoza).

The original plan for the following day was to walk between 4 and 6 hours to the north of Keara Nuevo until reaching the largest fragment of *Polylepis pepeii* forest. It was unfortunately raining and not the best day for a long walk, so we decided to evaluate a fragment of forest near the lake "Tolca Cocha". Here we worked all day collecting and inventorying the forest, we obtained fertile material of several plants that we had previously only collected sterile, among them a *Gynoxys* (Asteraceae), which we suspected to be a new species and it is one of the dominant trees in this forest. Getting around in this forest was a bit complicated, because it is growing between large blocks of rock with cracks and fissures, covered by mosses and organic matter, and the rain made maintaining our balance difficult. Alfredo had an accident; he slipped and cut his ankle on a rock. Returning to Keara we worked until very late processing the plants that we had collected.

The following day, the rain started again early, and we decided to leave for Pelechuco before the road got completely soaked and impassable. Beginning the return the motor of our rented truck cut out and we were lucky that we were able to rent another truck from a family of miners in the town of Keara. We reached Pelechuco without further problems and made a stop near the pass to collect plants of the subnival flora. Later we passed another damaged truck, which

we helped to repair it and continued our trip to Pelechuco and started to make preparations for our trip down along river the following day.

From Pelechuco we first made a scouting trip to find a good place to establish camp, Remy Roque our guide accompanied us. We walked along the river until noon and collected as we advanced, first through a strip of degraded forests of timberline forest and later in an upper montane forest that was better preserved. We stopped at a place called Piara at 2900 m, where there is an unstable rustic bridge to pass the river, the horses and mules cannot pass this bridge or ford the river, so it became by default our campsite. While we had lunch at the river we observed the torrent ducks (*Merganetta armata*), a peculiar species of bird whose habitat is the most turbulent rivers like the river Pelechuco. It swims up or down river though the most torrent parts with ease. Their populations maybe strongly threatened here, due to the gold mining and associated contamination of the river.



Moises and Ma. Cristina pressing during the cold night (A. Fuentes).



Flower of *Passiflora macropoda* (A. Fuentes).

The following morning we returned to Piara with all our material and equipment, loaded on three mules guided by Remy Roque and his wife. We installed our base camp and then we walked further down river collecting and inventorying the forests. We worked three days from Piara and we made four inventories in the montane forest that is dominated by *Weinmannia pinnata* (Cunnoniaceae), *Clusia* spp. (Clusiaceae) and *Hedyosmum angustifolium* (Chloranthaceae). One of the inventories was made at a site with different rock substrate and it was dominated and characterized by *Columellia oblonga* (Columelliaceae), *Clethra* (Clethraceae), *Clusia* and

Ternstroemia subserrata (Theaceae). We continued along the river, the trail was in good shape, and we reached another bridge made of trunks after four hours. According to Remy Roque the trail reaches Apolo in 5 days, in the past it was a route much traveled to interchange products between the altiplano and yungas, mainly cocaine leaves, but since then new highways have been established and the importance of the trail had diminished, and it is now almost completely abandoned.

Again we worked processing our collections until late at night suffering in the cold, the humidity and the mosquitoes unusual to find in such cold and high places.

Among the collections made *Passiflora macropoda* (Passifloraceae) a rare species probably pollinate by bats, a *Inga* vel. sp. nov. (Fabaceae) in buds, and *Lepechinia lancifolia* (Lamiaceae) stand out. In addition, we found an interesting species of Cactaceae with red flowers growing on the rocks and a dwarfed species of *Cyathea* (Cyatheaceae), probably new to science.

Returning to Pelechuco we had time to collect plants on the walls of abandoned houses and a wild tobacco species (*Nicotiana* sp., Solanaceae), that grew in the small alley. We returned to La Paz using the ramshackle bus. It leaves from the square at four in the morning. The intense cold forced us to use our sleeping bags to travel more or less comfortable the first hours.

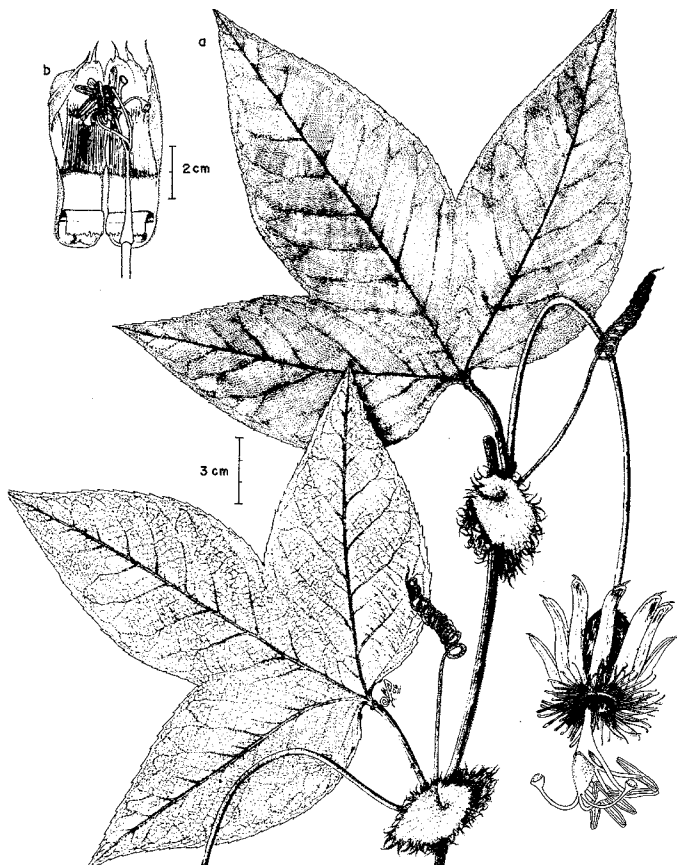


Illustration of *Passiflora macropoda*