



First 2 years of Atmospheric CO₂ measurements in the Estany Llong plain (2100 masl, Parc Nacional d'Aigüestortes i Estany de Sant Maurici, Pyrenees, Catalonia, Spain).

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Since April 2009, air samples are being taken bi-weekly at 10 GMT in the plain of the Estany Llong at 2100 masl.

Estany Llong air sampling site (ELL, 42°34'29"N 0°57'17"E) is a remote site situated in the SW principal valley of the Parc Nacional d'Aigüestortes i Estany de Sant Maurici.

New Flask-sampling equipment for Remote Mountain Sites was developed by the Institut Català de Ciències del Clima (IC3) to allow flask sampling in extreme weather conditions and carrying the sampling equipment for more than 10 km without damaging flasks.

Dry Air analysis for CO₂ are done at the Laboratory of IC3 using two coupled modified IRGA Licor-7000, where both pressure and flow are externally controlled.

Far away from populated areas, ELL site acts as a remote site, but it is also responding to discrete events as snow melting, summer cattle breeding on pastures and trekking frequentation.

Series of CO₂ obtained are included as part of Long Term Ecological Research (LTER) at the Parc Nacional d'Aigüestortes i Estany de Sant Maurici. In the long term, these measurements show the mountain ecosystems contribution and geomorphologic influence on the CO₂ budget of the air masses crossing a mountain range.