

NEE at the Eastmain Reservoir

The saga continues...

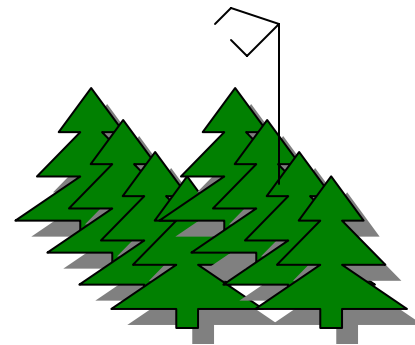
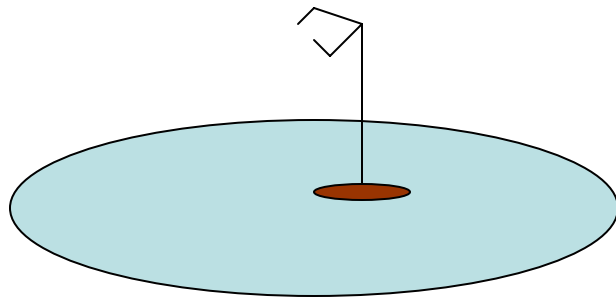
Dr. Ian B. Strachan

**Department of Natural Resource Sciences &
Department of Geography**



Methods in brief

Install duplicate tower flux systems: one in the reservoir (on an island) representing the flooded conditions and the other within an area which represents the pre-flooded forested environment



Forest tower site



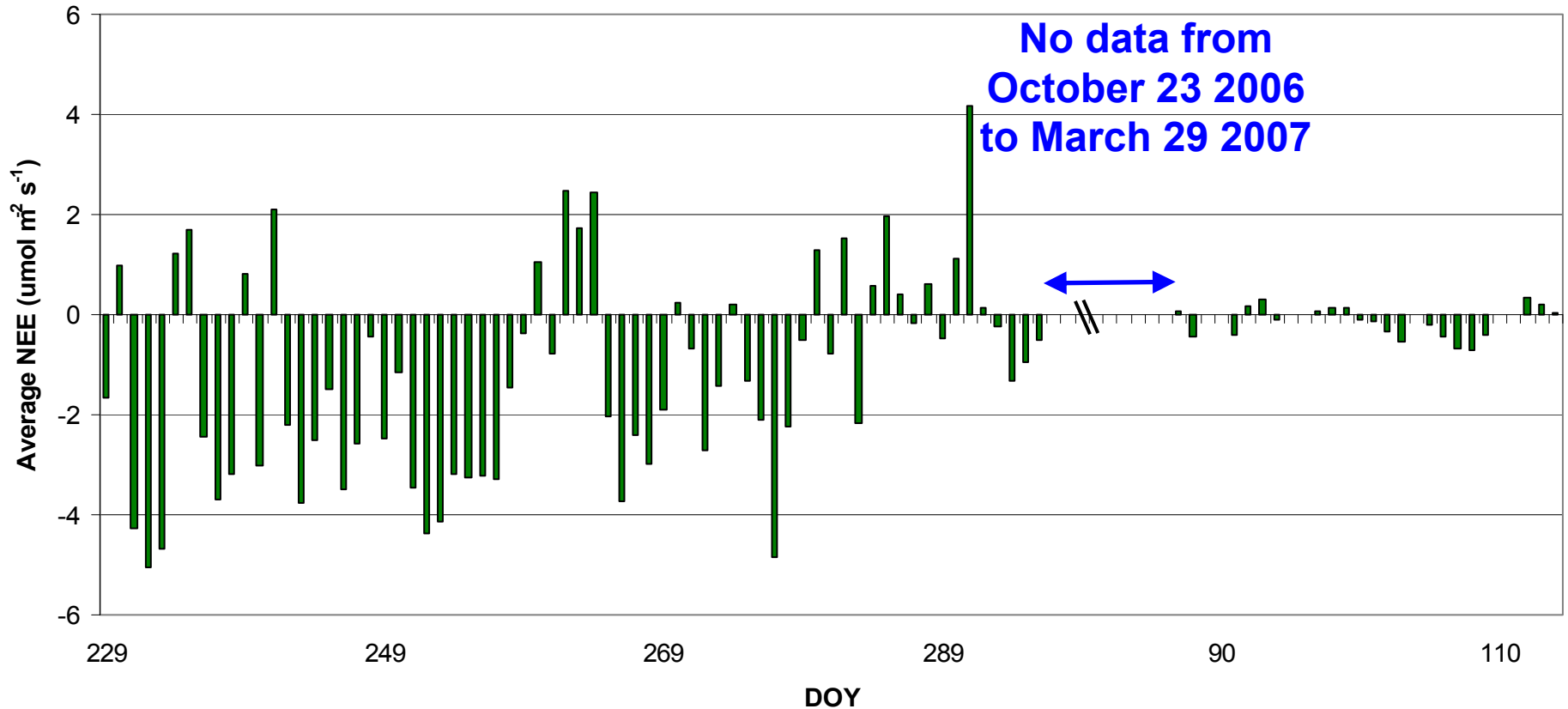
Ile Marie-Eve



Tower Flux Team – 2007

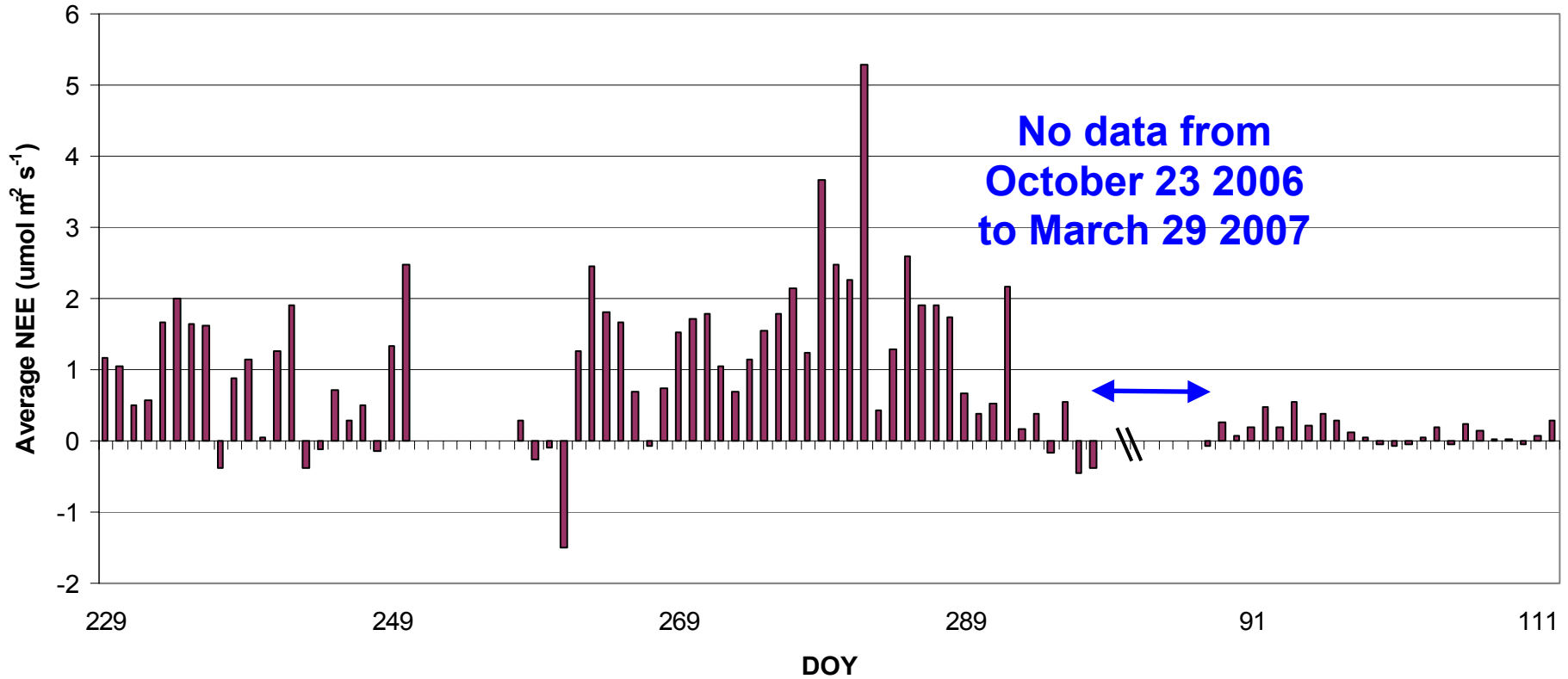
- Marie-Ève Lemieux (M.Sc. candidate)
- Sara Knox (McGill summer undergraduate student)
- Marie-Claude Bonneville (Research Professional)
- Dr. Ian Strachan
- Dr. Nigel Roulet

Forest: Daily NEE

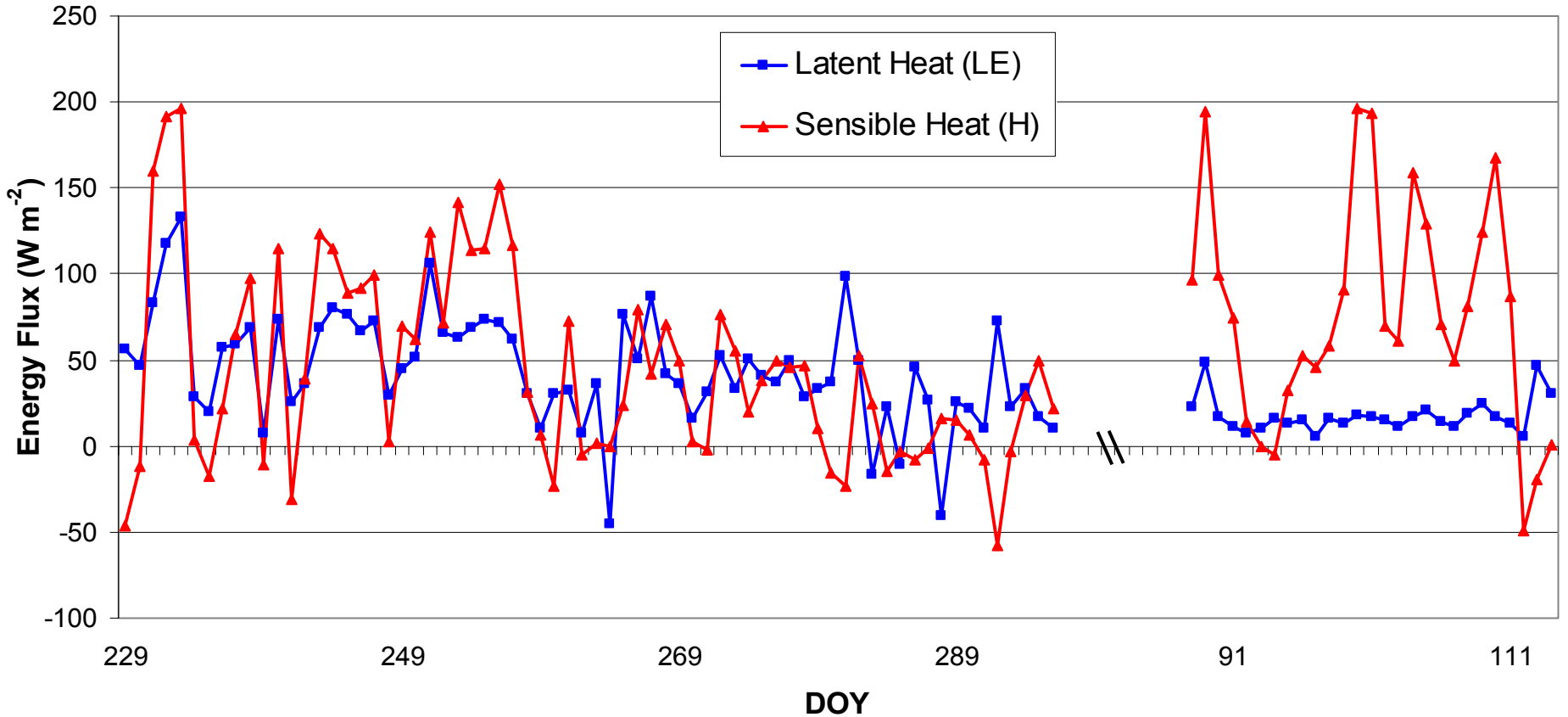


***Uptake likely overestimated because there are very few "good" nighttime data

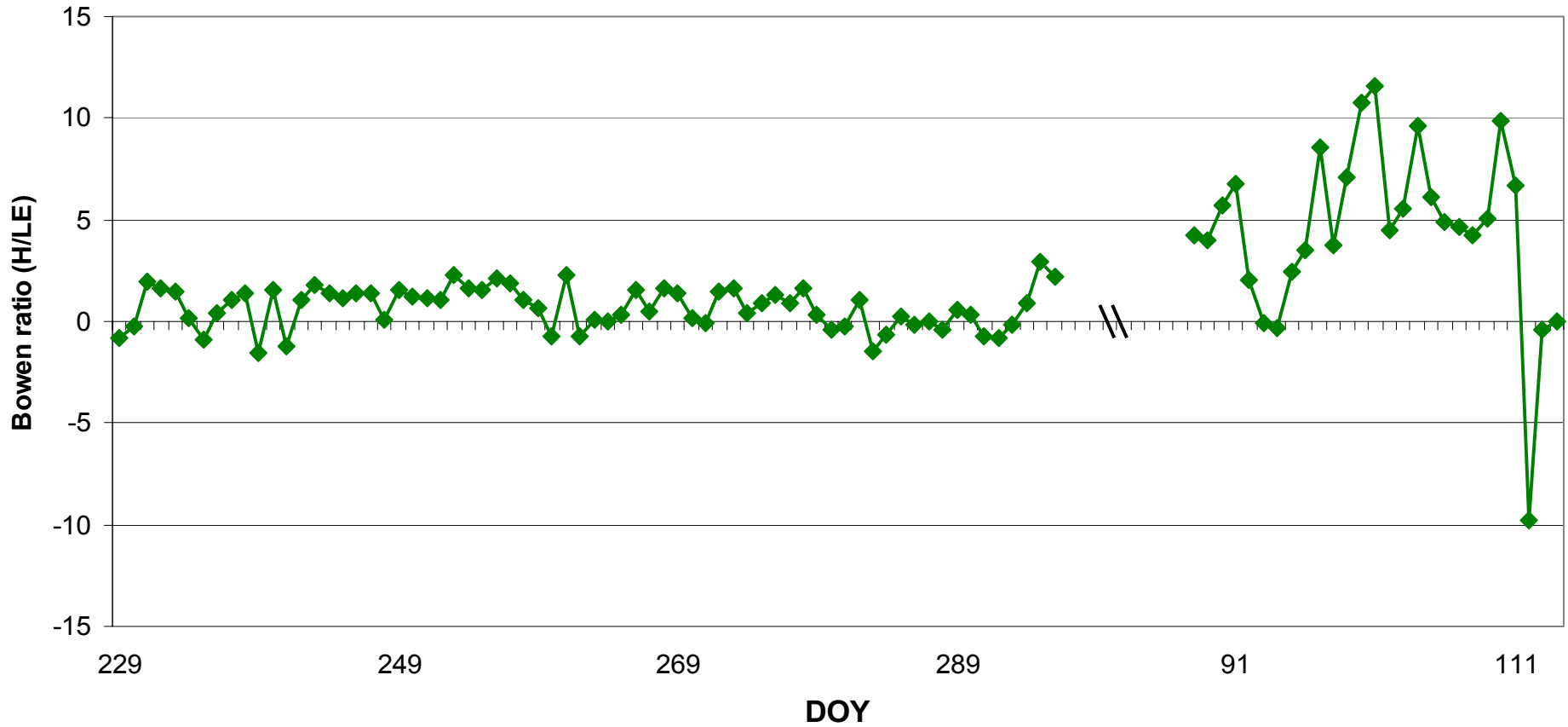
Island: Daily NEE



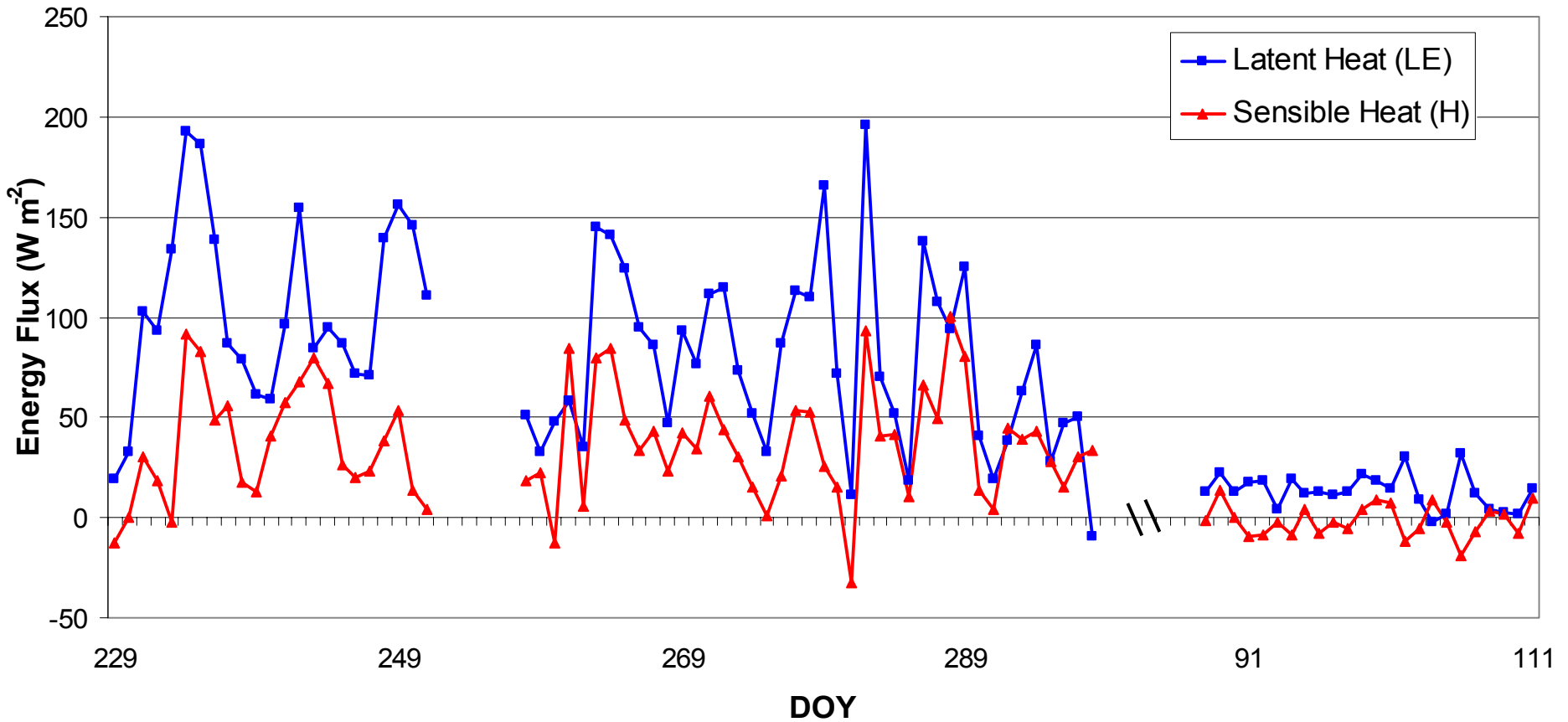
Forest: Energy Fluxes



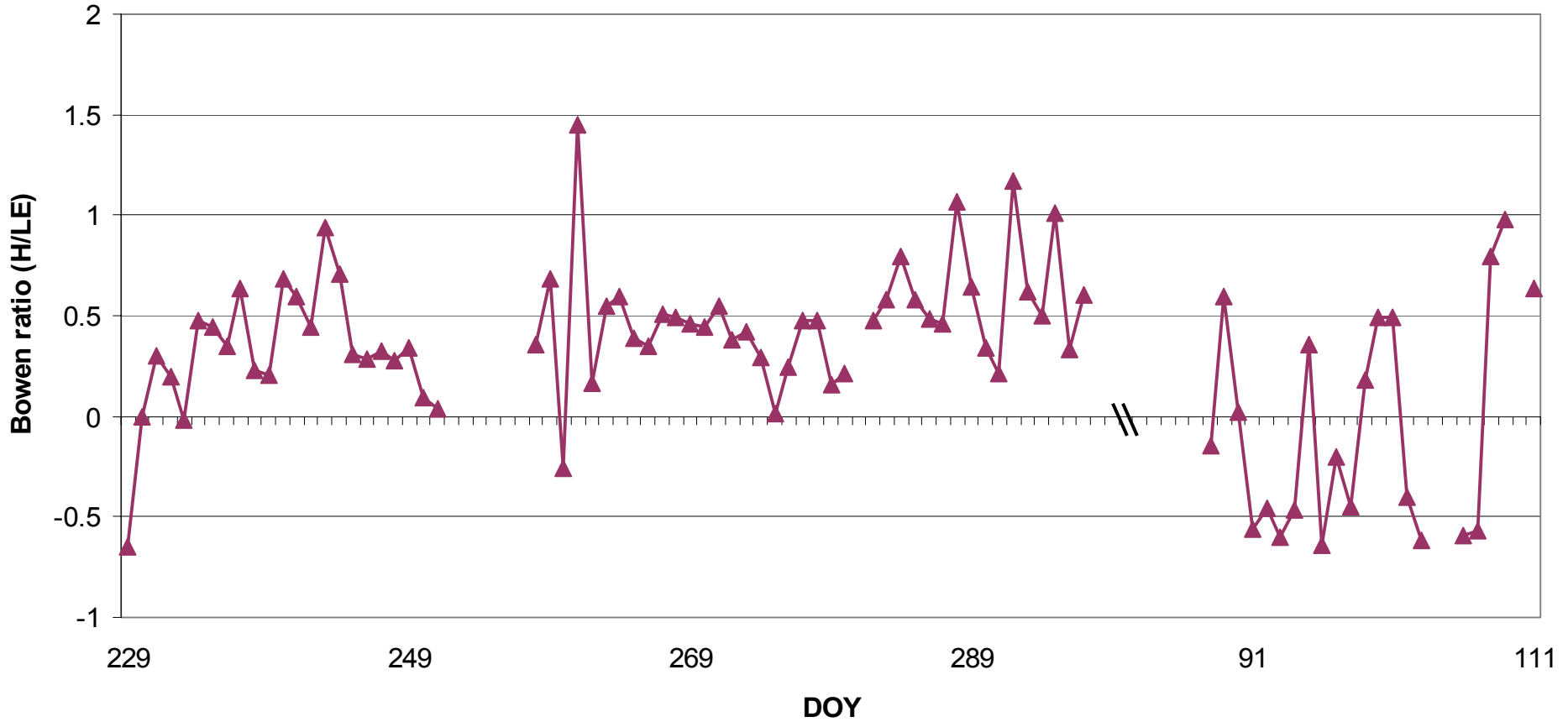
Forest: Bowen ratio



Island: Energy Fluxes



Island: Bowen ratio



Problems Encountered and Solutions Implimented

- Loss of power during winter months
- New solar panels and propeller generators installed
- Some met data unreliable since mid-September 2006
- One T/RH sensor repaired; wiring problem fixed;
- Not much wintertime flux data
- 2007 spring snowmelt is captured
- Time stamp of data loggers were affected
- datalogger programming bug now resolved

Suggestions

- Regular site checks
- Regular data quality checks
- Move data loggers to a “heated” enclosure near the tower base
- Remote querying of data loggers??