



### PROJECTS IN CLIMATE CHANGE AND THE MARINE ENVIRONMENT

Pacific Center for Environment and Sustainable Development PACE-SD, EU GCCA Project, USP 2011-2014

Dr. Antoine De Ramon N'Yeurt Research Fellow, PACE-SD The University of the South Pacific Suva, FIJI Email: nyeurt\_a@usp.ac.fj







## Seawater Temperature Monitoring Project (In collaboration with GOPS/SPC/SOPAC/PCDF)

Project coordinator: Dr. Antoine De Ramon N'Yeurt













- Funded by the Fonds Pacifique 6,900 €
- Funds have run out; now looking for other sources (USP) for continuity





- A total of 7 current sites monitored since November 2012
- All use high-precision SBE-56 T-loggers between -10 to -12 m







- USP (with collaborators) in charge of logger deployment, rotation and data retrieval.
- Raw data sent to GOPS and uploaded to GOPS and USP data portals for free access. First 6-month block of data retrieval planned for July/August 2013
- Integration within ReefTEMPS project of GOPS
- Proposal submitted to USP Research Cluster for extension of project and addition of 4 more sites.
- Also proposal to extend vertically the monitoring of temperature (VERTEMP project) at -35, -57 and -90 m (internal waves and thermocline measurements)
- Currently looking for sponsors for VERTEMP.











Four additional sites planned for Fiji waters (Rotuma, Vatu-i-Ra, Beqa, Kadavu)

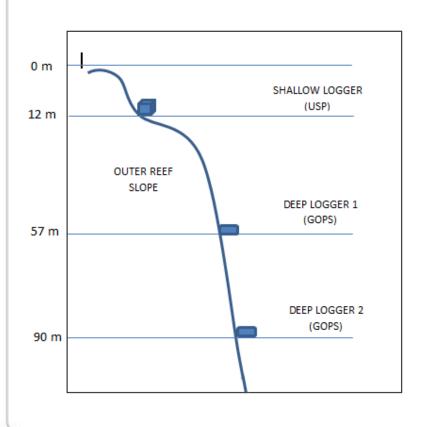






#### **VERtical TEMPerature Profiles for Pacific Coastlines (VERTEMP) Project**

Project coordinators: Dr. Hélène Jacot Des Combes, Dr. Antoine De Ramon N'Yeurt, Prof. Elisabeth Holland

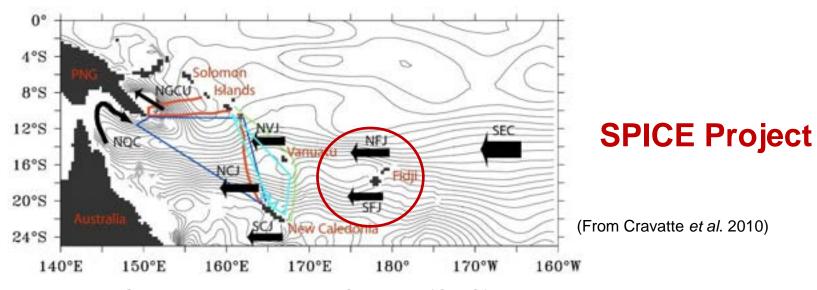


- ■Vertical series of SBE-56 loggers (at -35/57m, -90 m) to complement current shallow-water measurements.
- •Also possibility of fixed buoy moorings for loggers (easier to deploy/rotate).
- ■Designed to complement and improve upon similar work done by Dr. Patrick Colin in Palau, northern hemisphere (there, using simpler HOBO loggers).
- ■Deep loggers will have acquisition rate of 1 minute (10 mins. for shallow ones).
- Data will be invaluable for study of internal waves and thermocline in Fiji.
- This project is at the proposal stage and looking for funding sources.





#### Integration of PACE-SD into existing IRD projects?



- ■The Southern Equatorial Current (SEC) bisects into the North Fiji Jet (NFJ) and South Fiji Jet (SFJ) encountering the Fiji land mass (Figure above).
- Possibilities of jointly deploying / monitoring sensors / gliders in NFJ or SFJ?
- •USP students and staff could help with project logistics / data modeling.





#### Exchange Visits IRD / USP in Climate Change





- ■Through various existing projects at USP (EU GCCA, PACE-SD, AusAID/CLP...) there are provisions for the mutual exchange of students and staff between USP and Centers of excellence worldwide, such as IRD.
- •Fostering of South-South and Regional English speaking-French speaking research institutions collaboration.
- ■Could be in form of seminars, training workshops, internships, research visits, thesis supervision, field work using USP facilities...
- ■PACE-SD has the highest number of postgraduate students doing theses in areas of climate change, modeling, oceanography.



# THANK YOU VERY MUCH MERCI BEAUCOUP ...hoping to see you at USP in Fiji!

