

## PERCEPTIONS OF THE RIP CURRENT HAZARD AND OBSERVATIONS OF BEACHGOER BEHAVIOR

*Sarah Trimble, Texas A&M University*  
*Rob Brander, University of New South Wales*

Numerous studies have now investigated the beach-going public's awareness of rip current hazards, warning systems, and escape strategies. We present an analysis of the difference in self-reported knowledge and observed behavior amongst locals and natives on Bondi Beach (Sydney, Australia). Face-to-face surveys were conducted to gauge beach users' awareness and understanding of rip current hazards. Previous research conducting intensive interviews compared subjects' perceived knowledge with their observed knowledge, but no previous study has correlated survey location with rip location, thereby evaluating subjects' behavior. The surveys completed in this study emulate previously published research while additionally examining proximity of subjects to a rip. On-site interviews were geo-tagged and analyzed for spatial relationships to each other and to the locations of rip hazards during the interview. Maps of rip location were constructed from an Argus-style remote camera and time-stacked images from the camera reveal rip locations.

The locations of rips during the study are combined with the geo-tagged interview locations to determine if proximity to a rip influences answers, and if subjects' behavior (defined as their choice of location with the beach) reflects their knowledge of beach safety. Data were collected during 6 weeks in July and August 2015. Funding was provided by the National Science Foundation's East Asia Pacific Summer Institute and the Australian Academy of Science. Results clarify whether vulnerable groups are attracted to specific parts of the beach, and specifically whether they are attracted to the smoother looking rip current between breaking waves, as has been subjectively and anecdotally hypothesized in the past. Results aid in bridging existing gaps between coastal geomorphologists, policy makers, and the beach-going public to lower rip-current related fatalities and injuries in Australia and the United States (US).