

Rip Currents and Beach Safety Education

By

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Rip currents are the most serious hazard that threatens bather safety on most of the world's surf beaches. Due to unreliable data collection methods, the number of rip currents drownings in the U.S. and worldwide is not known. However in the U.S., it is estimated that between 100 and 150, mostly inexperienced bathers and swimmers drown annually in rip currents. Statistics from the United States Lifesaving Association (USLA) and the Florida Beach Patrol Chiefs reports show that 80 percent of all lifeguard rescues and assists are the result of rip currents. Put into perspective, rip currents are responsible for more deaths than floods, hurricanes and fires.

Despite efforts from various organizations to educate the public about rip currents, there is no empirical evidence that the number of rip drownings is declining. We believe that one of the reasons is related to the disconnect between rip current research and public education.

Beach safety programs are currently being promoted on many of the world's beaches through signage, which require bathers to look for rip currents before entering the water. They recommend looking for a discoloration in the water that takes the form of a "neck" near shore and terminating in a mushroom shaped "head" further offshore. "Excited" water and flotsam swiftly moving away from the beach are often cited as other ways of visually determining if rip currents are present.

Over the past three decades we have observed hundreds of rips and recently filmed rip currents using tracer dye. In reality, rip currents seldom conform to the classic descriptions being promoted in beach safety programs and on warning signs. Consequently, the attributes being used in beach safety and warning programs are not reliable indicators for identifying rip currents.

We feel that it is necessary to re-evaluate how bathers are being warned and educated about these dangerous currents. More effective warning methods must be developed as an outcome of this re-evaluation process. In the meantime, even if the warnings being used are not as effective as we hope them to be, we must continue to warn bathers about rip currents, especially those not experienced in bathing and swimming on surf beaches. Something is obviously better than nothing, especially when human life is at stake.

There is the additional problem regarding the recommendation given to bathers who are caught in a rip current. Bathers are instructed to ride the current offshore until it weakens or swim parallel to shore in either direction before swimming back to shore. This recommendation is flawed because it fails to consider the likelihood that a longshore current often occurs simultaneously with the rip. Consequently, swimming against a

longshore current can sweep the bather back into the rip. The bather will not be making any progress toward shore, causing exhaustion and panic—these two factors often lead to drowning.

Despite our concerns about signage and related education programs, there is one element found in the message content with which we strongly agree—bathers should always be encouraged to swim near a lifeguard. The efficacy of professional lifeguard coverage has been well documented by the USLA, CDC and the Florida Beach Patrol Chiefs Association.

In summary, expecting a bather to be able to identify rip currents using current signage and information is problematic, a bit optimistic, and even unrealistic. When professional lifeguards cannot always accurately identify the presence of a rip current, how can we expect members of the public to do the same?