

Primary Cause of Rescues at Surf Beaches

Using the data reported for the years 1994-2004, the United States Lifesaving Association identified rip currents as the primary cause (82%) of distress leading to rescue by lifeguards at surf beaches. A more recent review of data for the years 2003-2012 resulted in a similar outcome (81%).

The USLA presently receives reports from over 100 beach lifeguard agencies (mostly public and some private) each year. These agencies primarily include surf beaches, where rip currents exist, but also small inland lakes and rivers where rip currents do not exist. Most lifeguard agencies report on the primary cause of all of their rescues, but many do not, including some of the larger reporting agencies. As a result, the primary cause of over 20,000 of the rescues reported each year are not identified in the statistical breakdowns from those agencies.

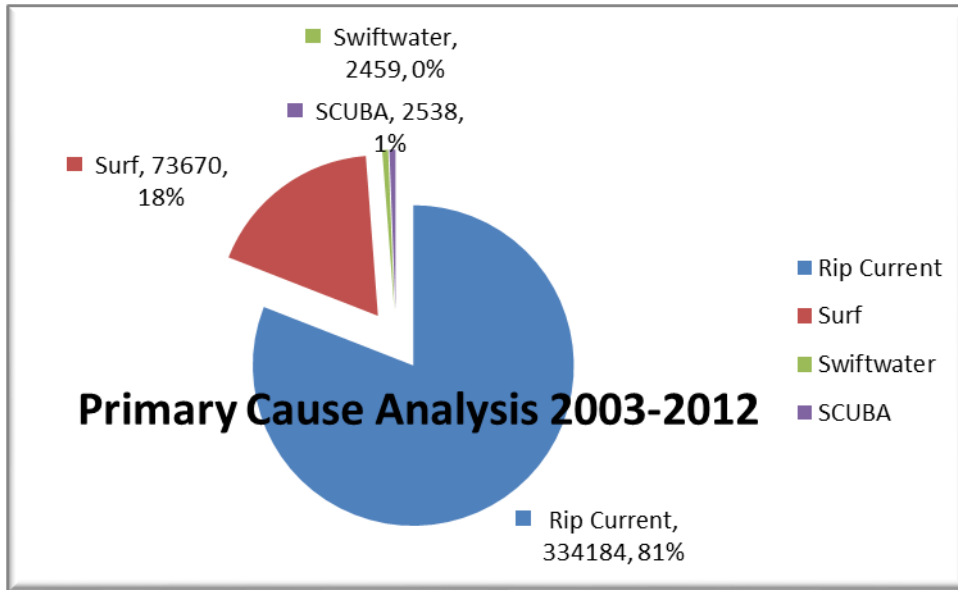
Those reviewing the complete version of the raw data, available for download in spreadsheets, will find it easy to identify the agencies that do not report a primary cause, as there will be no breakdown in the columns for causes such as rip currents, but only aggregate numbers of rescues. Identifying the agencies that oversee small lakes and rivers requires knowledge of the agencies' geographic area of responsibility, which is not clear in the data. Researchers needing assistance in this regard are encouraged to contact statistics@usla.org. Finally, it is notable that some agencies, such as the City of San Diego and California State Parks include rescue data for both inland areas (lakes, rivers, and harbors) and surf beaches. It is not possible to separate the data in this case, but the predominate rescue locations are surf beaches, so they are included them in the analyses.

In order to compensate for these factors and to determine the importance of rip currents as a primary cause of rescue at beaches where they exist, the data was evaluated to identify the agencies that should be excluded.

The 1994-2004 analysis found the predominant cause of rescues at surf beaches where a primary cause was reported to be rip currents, exceeding 82% of all rescues. California beaches report a more significant percentage for rip currents. For example, an analysis for the year 1998 is 90.12%. A second ten year review of the data to determine the primary cause of rescues at surf beaches was conducted in 2010. A smaller sample of agencies from the reporting database was selected based on consistent reporting history and known rip current conditions.¹ The 2010 analysis found rip currents were the primary cause of 90% of rescues at these surf beaches. Finally, an analysis was conducted of the entire database more recently for the years 2003-2012. This found the primary cause of rip currents at reporting surf beaches to be 81%.

¹ California State Parks; Corolla Ocean Rescue, SC; Galveston County, TX; Volusia County, FL; Fort Lauderdale, FL; and, Newport Beach, CA

In summary, when agencies that have not reported a primary cause of rescue and agencies that are predominately or entirely responsible for safety at inland areas with no rip currents are excluded, the primary cause of rescue at surf beaches has consistently been found to be in excess of 80%, up to 90% in some areas. These percentages are skewed downward to an unknown degree because some lifeguard agencies included in the analysis include non-surf beaches in a part of their jurisdictions and rescues at non-surf beaches are included in some of the reported numbers.



National Primary Cause of Rescue Analysis 2003-2012

Year	Rip Current	Surf	Swiftwater	SCUBA	
2012	35935	7288	307	272	
2011	32529	6909	471	133	
2010	39700	8707	531	172	
2009	37434	9365	473	957	
2008	41610	8775	203	178	
2007	40810	8449	140	159	
2006	32961	7159	171	217	
2005	24089	6182	99	159	
2004	27823	6476	28	177	
2003	21293	4360	36	114	
	Rip Current	Surf	Swiftwater	SCUBA	
Totals	334184	73670	2459	2538	412851

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