



RNLI | Research Project ID: 12-13c

Leisure divers audience profiling

Sponsor: Department: Date Started: Date Completed: Contractor: Principal researchers: RNLI Coastal Safety, British Diving Safety Group (BDSG) RNLI Operations Research Unit 12/07/2013 31/01/2014 Substance Dr. Adam Brown, Dr Kath Edgar, Dr Gavin Mellor, Dr Tim Crabbe, Peter Bain and Dr Paul Stolk (University of Newcastle Australia)

Summary

The UK coastline is renowned for having a diverse marine environment and a huge variety of wrecks for divers to explore. 'Leisure diving' in the UK encompasses activities as wide ranging as scuba diving, snorkelling and free diving and, in 2013, there were an estimated 271,000 UK leisure divers¹.

The safety of divers in the UK is of paramount concern for the governing bodies and training organisations that attend the British Diving Safety Group (BDSG). The BDSG includes representatives from the British Sub Aqua Club (BSAC), the Professional Association of Diving Instructors (PADI), the RNLI and the Maritime and Coastguard Agency (MCA), amongst others.

The research was commissioned by the RNLI in partnership with the BDSG to better understand approaches to safety and attitudes to risk amongst UK leisure divers. The RNLI Coastal Safety work will focus on these results as a high priority, using them to inform any training, advice and information provided to UK divers. It is the RNLI's hope that the findings can be used by the diving community to help reduce the number of fatalities in the UK, which currently stand at an average of 15 per year².

The research adopted a mixed method approach, which included a large-scale quantitative survey, interviews with divers and instructors, focus groups and consultation with dive organisations. We received an overwhelming response from the diving community and would like to extend our sincere thanks to everyone who helped with the study.

The evidence collected was used to identify five broad segments based on experience and attitudes to safety. This research summary presents our approach to the project, a summary of the segments, and suggestions for developing dive safety campaigns and messages that are closely targeted towards those divers most likely to get into trouble.





¹ Arkenford Limited: Watersports Participation Survey 2013. The figure quoted relates to the number of divers who live in the UK and went diving at least once in the year before the survey.

² BSAC National Diving Committee; 'Diving Incidents Report 2013'. The average quoted is for the 10 year period from 1993 to 2002 and includes all diving fatalities in UK waters.

Research aims and objectives



The BDSG project steering group set the following aims for the project were to:

- profile participants according to their motivation for participation, patterns of diving and attitude to risk and safety
- produce a clear and accessible segmentation of the UK diving audience, which can be used by the BDSG to effectively communicate safety messages to high-risk groups.

The aims of the project were to:

- create a segmentation of the leisure diving audience in the UK and identify those leisure divers which might benefit most from further training, safety advice or messages
- provide evidence on each of the segments in terms of their motivations, attitudes, and demographic profile (age, gender, socio-economic status).
- identify methods of effectively communicating safety messages to divers, in ways which promote safe behaviour
- test emerging findings with the diving community (ongoing).

Method and approach

The method for the study included:

- a review of existing literature and research
- qualitative stakeholder interviews
- a quantitative survey (web or face-toface), which received 3,541 completed responses from divers and instructors (352 of these were conducted face to face)
- 62 semi-structured interviews with divers and instructors
- 52 short interviews conducted at the 2013 Dive Show
- five focus groups with small groups of 4-6 divers
- consultation with industry stakeholders and practitioners.

All participants dive in the UK, with the exception of some stakeholders who provided supporting roles such as skippers on charter boats. Each of these methods is briefly summarised below.

Review of existing knowledge

Available published literature and research relating to diving, diver typologies, and divers and risk was assessed. RNLI data about leisure diver fatalities and incidents was also analysed. Finally, a review of diving stakeholder data, including incident data, membership and demographic data was completed.

The review helped to inform our approach to following stages of the research, particularly the design of research instruments such as the survey and interview guides.

Stakeholder interviews

A series of initial qualitative interviews with diving stakeholders were conducted at the beginning of the research. These included: British Sub Aqua Club (BSAC), PADI, Scotsac, Sub Aqua Association (SAA), DDRC, SSI and members of the RNLI steering group. The interviews were used to inform the design of the subsequent interviews and survey, and explored topics such as diver motivations, experience levels, precautions and attitudes to risk and safety.

Participants also gave feedback on a pilot version of the survey, leading to further refinement of questions and structure.

Surveys and interviews

All respondents were asked questions in the following areas:

- diving experience (number of years diving, frequency, maximum depth, highest certification level)
- diving behaviour (motivation, co-divers, location, and self-definition of expertise)
- precautions taken during their last dive and preceding 12 months
- attitude toward diving risks
- demographic details.

A filter question was asked to identify divers who had acted as an instructor and/or dive guide in the preceding 12 months. These participants were then asked a series of additional questions about their instructing experience and views.

Qualitative and contextual research

Survey participants could elect to be contacted for further contribution to the study through an in depth interview, or as part of a focus group.

Substance conducted five focus groups. In a structured discussion format, questions were asked about diving experience and incident experience, attitudes to risk under difference scenarios, and participants' views about the content, style and delivery of a future safety campaign. Groups included divers of varying experience and types of diving.

Consultation with key stakeholders was undertaken in the final stages of the project to gain feedback on some emerging findings.



Analysis

The responses to a series of key survey questions were used to profile respondents in terms of their motivations, experience and self-reported approach to safety and risk. These were then analysed in three stages:

- The data was analysed to identify six clusters of divers with significant differences to each other in relation to their approach to risk and motivations for diving.
- These clusters were then analysed for behaviour, motivation and experience characteristics, to establish whether

Key findings

there was a link between, for example, experience level and attitude to risk and safety.

3. Responses to survey questions were further analysed to see how each group differed from the mean. These six clusters were reduced to five audience segments, since two of the clusters were very similar.

Data was checked for bias against other known data for experience, gender and age³. The survey sample was found to have a significantly more experienced and older profile than was present in BSAC, PADI or Arkenford data. As a result, the overall response data was then weighted to match firstly the age profile, then secondly the experience level.

All results are based on this weighted data.





Analysis of our weighted sample was used to provide a brief profile of our respondents. It showed that:

- Most (73%) leisure divers are male and over half (57%) are aged between 31 and 60. Over three quarters (77%) dive mostly in the UK.
- There was wide variation in the number of dives that our respondents had undertaken in their lifetimes, 22% of our sample had completed fewer than 50 dives, while 11% reported having completed more than 1,000 dives.
- Key motivations for diving are the experience of being underwater, observing marine life, and socialising.
- Divers in our sample viewed the most risky activities associated with the sport as: drinking 12 units of alcohol within 12 hours of a dive; continuing a dive after being separated from a buddy and diving solo. They considered the least risky activity to be diving in a group of three.
- Instructors felt that divers not paying attention (36%) and operating outside of their limits (29%) were most likely to cause a safety issue, but they also acknowledged that peer pressure and desire 'not to lose face' when combined with a lack of understanding of limits was important.

• The majority (52%) of divers use dive clubs and centres as their main source of information. Social media is the least popular source of information (11%).

These overall findings mask huge variations between different groups of divers. The purpose of the next stage of analysis was to segment our sample to account for some of those differences.

Segment 1 – Experienced Club Divers

(40% of audience, 1,427 divers in sample)

Statistically the 'average diver' in our sample, this group is the least likely to have experienced a safety incident. Settled and in later middle age, they are risk-averse, experienced and know their limits. Most information comes from clubs and centres and they are least likely to dive on their own or with an unknown group. Key drivers are observing marine life and exploring wrecks. There were also a high proportion of instructors who fell into this segment.

'Diving has some inherent risks but they're all manageable and I want to help others be safe.'

³ The profile of the survey sample was compared against BSAC and PADI membership statistics and data from the Arkenford Watersports Participation Survey. Since the Arkenford study adopts a representative sampling approach within the UK population, this source was chosen to inform the weighting of the sample.

Segment 2 – Young Intermediates

(7% of audience, 261 divers in sample)

With the youngest profile, this group is the least experienced in our sample and also the most motivated by the excitement and thrill of diving. Currently in education or recently graduated, they are likely to live with friends, parents, or are starting to settle down. Most achieved their first qualification abroad and more dive abroad than any other group. This may present challenges when they come to dive in the UK. They are intermediates in terms of diving experience and use websites and forums to access information.

'I get to see things that most other people don't get to see so there is a bit of a thrill to the actual diving itself ... I wouldn't say its life on the edge but ... more of an adrenaline thing.'

Segment 3 – Learner Divers (17% of audience, 603 divers in sample)

Very inexperienced, this group has the lowest average number of years diving and may be more likely to rely on buddies or instructors to ensure that safety precautions are taken. They are younger, settling down, and were found to have a higher proportion of women than the other segments. They are more likely to dive abroad and reported a greater propensity to dive below their maximum depth. They use a mixture of sources to gain information about diving and safety.

'One of the dump valves had corroded and the seal had gone on it and it dumped me.Had a very experienced buddy who got me up from 30m. I was very flustered and she calmed me down and made sure I did the safety stops and we ended the dive.'

Segment 4 – Young Aspirers (20% of audience, 719 divers in sample)

With the second youngest age profile, this group sits between starting out and settling down. With the most accurate understanding of their limitations, they are relatively risk-averse and on the whole, motivations and behaviour match the norm. Aspirational, a relatively high number have acted as dive instructors/guides. Contact them via dive centres and clubs.

'The main messages we get told are don't go beyond your depth, don't go outside your safety limits, be properly prepared, plan your dive – dive your plan.'

Segment 5 – Time Served Instructors (15% of audience, 530 divers in sample)

Very experienced, frequent divers, this group tend to live in the south, is settled and in late middle age. The most likely group to act as instructors, they are motivated by teaching others skills. UK qualified, they dive most often from boats and are the most riskaverse, taking more precautions than any

'At the end of the day your life depends on the guy you are diving with ... I know that if something happened he'd sort it, I'd come out of it.'

other group before they dive. Contact them

via their dive club.



Communications messages

Quantitative and qualitative research provided information about where divers, instructors and stakeholders think a safety campaign should focus. An overwhelming majority of divers thought that there was a need for a safety campaign.

Training was cited as the key area. However, there was a fairly widespread understanding that a change in the attitudes of divers towards risk was important.

It was also felt that a safety campaign should:

- not focus on compulsory or regulatory measures but on advice and training
- be led by a more unified approach from dive organisations, in partnership with the RNLI and rescue services
- focus on the importance of regular and refresher training and better use of equipment.

Divers also made these suggestions on the tone of future messages:

- Steer clear of notions of danger, heightened risk and shock value
- Provide messages from a trusted source (one with authority), but without sounding authoritative.

Finally, there seemed to be a general lack of awareness about the BDSG (British Diving Safety Group). Consideration might be needed to raise awareness of the body and how it brings dive organisations together for a unified approach to safety.

If you are interested in finding out more about this study, please contact Tom Walters, Research Manager for the RNLI's Operations Department: Thomas_Walters@rnli.org.uk.



How the RNLI and BDSG is using the evidence



RNLI and BDSG members have been working with the diving community on the findings of the study since the start of 2014. The partners have also been comparing the results of this study with the profile of diving fatalities and serious incidents in the UK, to determine the groups which should be the focus of future BDSG activity. The RNLI is now working with BDSG partners to deliver a UK diver Sea Survival course, as well as resources to encourage more thorough dive planning and buddy checks. The RNLI and the Diving Diseases Research Centre (DDRC) are also considering what more could be done to help divers identify medical issues that should be taken into account when diving.

Further reading



Arkenford (2012) Watersports and leisure participation survey 2012: http://www.dft.gov.uk/mca/watersports_ participation_survey_2012_-_executive_ summary.pdf

Stolk, P, (2009) If We Sink It, Will They Come? The Development and Management of Australia's Artificial Reefs as Resources for Sustainable Recreational Scuba Diving, Doctoral Thesis, University of Newcastle, Australia Cumming, B. (2013) National Diving Committee Diving Incidents Report 2013, BSAC: http://www.bsac.com/ page. asp?section=1 038§ionTitle=Annual +Diving+Incident+Report Wilks, J. and Davis, R.J. (2000) Risk management for scuba diving operators on Australia's Great Barrier Reef. Tourism Management, 21:591-599

Coxon, C., Dimmock, K. and Wilks, J. (2008) Managing risk in tourist diving: A safetymanagement approach. Chapter 11, p. 201-219, in Garrod, B. and Gossling, S. (eds) New Frontiers in Marine Tourism: Diving Experiences, Sustainability, Management, Taylor and Francis: Hoboken.

Todd, S.L. (2004) Only "real divers" use New York's Great Lakes. In Murdy, J. (ed) Proceedings of the 2003 Northeastern Recreation Research Symposium, Gen. Tech. Rep. NE-317, 211-218.

Acknowledgement and thanks

The RNLI and BDSG would like to thank Substance for their work on this study. Thanks also go to BSAC, PADI, ScotSAC, Sub Aqua Association (SAA), DDRC, TDI and SSI for their invaluable support and advice with the project.

The RNLI Operations Research Unit is indebted once again to our dedicated volunteers who gave up their free time to help with the survey fieldwork:

Linda Roberts (Dundee) Ken Oakes (West Kirby) Tony Jamieson (Redcar, Cleveland) Oliver Witt (Bournemouth) Alun Newsome (Pembrokeshire) Robert Karner (Wales) Simon Miles (Portsmouth) Peter Baker (Selby)



