



Keepemwet Fishing—An emerging social brand for disseminating best practices for catch-and-release in recreational fisheries[☆]

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ABSTRACT

There is a growing body of catch-and-release (C&R) science showing that adjusting the way fish are caught, handled, and released can reduce impacts on individuals and populations. However, a major caveat is that C&R will be a more effective conservation tool if best practice guidelines stemming from the science are understood, embraced, and adopted by recreational anglers. In recognition of this, Keepemwet Fishing (KWF) has emerged as a nonpartisan movement to provide simple, clear, and accurate C&R guidelines that transcend species and subcultures within the recreational angling community. The foundations of the KWF movement are science-based best practices, clear translations of the science, and a diverse and growing set of stakeholder groups that are sharing the Keepemwet sentiment via social media and other communication channels. We highlight the power of this grassroots movement, as well as potential hurdles that KWF and other social brands will need to overcome to broaden their effectiveness in making C&R guidelines more accessible and appealing to the public. Given the apparent increase in bottom-up attempts to disseminate best practices to anglers, the lessons learned from the KWF movement have the potential to be of great benefit to other groups engaged in angler outreach related to best practices and broader recreational fisheries conservation.

1. Introduction

Whether mandated through regulations or practiced voluntarily, it is estimated that over 60% of the ~47 billion fish caught by recreational anglers each year are released (Cooke and Cowx, 2004). Although it is hoped that the fish released back into the wild survive, incur limited acute impacts (e.g., injury, physiological disturbance, behavioural alterations), and do not have reduced biological fitness (Arlinghaus et al., 2007), there is a growing body of evidence that demonstrates that this is not always the case (Cooke et al., 2013a; Brownscombe et al., 2017). Scientific studies specifically geared towards understanding the outcome of capture and handling of angled fish reveal a range of impacts including physical injury (Danylchuk et al., 2014; Bower et al., 2016), physiological impairment (Lennox et al., 2015), reduced reproductive output (Richard et al., 2013), and post-release predation (Danylchuk et al., 2007). Many of these studies take a systematic approach to examine which elements of the angling event have the greatest impacts on fish (Cooke et al., 2013a), thus

contributing to potential solutions related to how changes in fishing practices and behavioral changes of anglers can reduce individual (i.e., related to fish welfare) and population level impacts on fish (reviewed by Brownscombe et al., 2017).

Although results from scientific studies can be used to derive best practice guidelines for catch-and-release (C&R), their power as a conservation tool is largely contingent on whether prescribed changes in capture and handling techniques are properly adopted by recreational anglers (Arlinghaus et al., 2007; Nguyen et al., 2012). This is especially important when altering individual behavior is not regulated and enforced, but rather voluntary based on individual beliefs, perceptions, and the collective social norm (Fehr and Fischbacher, 2004). However, changing engrained social norms in human communities can be challenging and largely contingent on demonstrating how change will not threaten, but rather potentially improve the desired outcome of a chosen individual-based activity (reviewed by Ostrom, 2000). For example, people are more likely to change their behaviors related to home energy consumption since it does not require a potentially (perceived)

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risky investment, such as purchasing solar panels for their house before benefits are realized (Steg et al., 2015).

In the context of recreational angling, the effective communication of scientifically validated best practices for C&R can be critical for changing the social norm (Arlinghaus et al., 2007; Cooke et al., 2013b). Given the diverse nature of the recreational angling community, however, it can be difficult to discern who is responsible for communicating best practices, and whether the information being communicated accurately reflects the outcome of C&R science (Arlinghaus et al., 2007; Nguyen et al., 2012). For example, Pelletier et al. (2007) revealed that C&R information provided by many state and provincial agencies in the United States and Canada varied extensively, with some providing tips that did not accurately reflect scientific evidence related to handling and release. More recently, Sims and Danylchuk (2017) found that less than 9% of recreational fishing non-government organizations (NGOs) mentioned C&R anywhere within their websites and almost none provided complete, accurate best practice guidelines even if their mission statements emphasized strong conservation values. Through a survey of individuals employed by the angling trade, Danylchuk et al. (2007) revealed that there were mixed beliefs about who or where their customers (anglers) obtain information on best practices for C&R, even if respondents themselves could identify what the potential impacts of capture and handling might be and that participation in conservation was an important part of brand identity.

If brand identity can be used to foster social change (e.g., Geller, 1989), could this be the key to the dissemination of knowledge related to the best practices for C&R in recreational fisheries? There is evidence that voluntary conservation action can be evoked through the use of campaigns that are based on marketing techniques pervasive through the business community (see Geller, 1989; Kollmuss and Agyeman, 2002). Product and action branding is also not new to the environmental and conservation world, with a prime example being the ‘blue box’ of the recycling movement (Hopper and McCarl-Nielsen, 1991; Lounsbury et al., 2003). Key to successful marketing is having a brand that is based on traits of trust and reliability, as well as reflecting desired outcomes when selecting one product over another or adopting change in action or behavior (Chaudhuri and Holbrook, 2001; Geuens et al., 2010). Evidence from the business world also reveals that having a brand that is easily recognizable can enhance appeal, consumer choice, and influence social trends (Belk and Rafferty, 2012).

For this paper we examined the rapidly growing movement of the Keepemwet Fishing (KWF) campaign (<http://www.Keepemwet.org>) focused on best practices for C&R in recreational fisheries. We use this paper to reflect on its origins, evolution, and trajectory as a conservation brand linked to goals of changing the social norms related to how fish are handled and released by recreational anglers. Given that top-down (i.e., government) approaches to promoting voluntary improvements in angler behaviour are regarded as being largely ineffective (Cooke et al., 2013b), it is timely to consider how bottom-up activities such as KWF might be able to achieve the meaningful and long-term improvements in angler behaviour that enhance the welfare of angled fish that are released (see Delle Palme et al., 2016). As such, although we focus on the KWF movement there are many other bottom-up movements related to improving angler behaviour that would benefit from the perspectives shared here.

2. History, motivations, branding, trajectory

The KWF campaign began in May 2013 as a grassroots movement responding to social media posts suggesting that some anglers were practicing C&R and claiming so using #catchandrelease (hashtags [#] are a metadata tag or keyword used on social media); yet what was being depicted in images did not match (e.g.; extensive air exposure of fish) scientifically validated best practices (Cooke and Suski, 2005; Brownscombe et al., 2017). With many scientific studies revealing that air exposure during handling can greatly exacerbate physiological

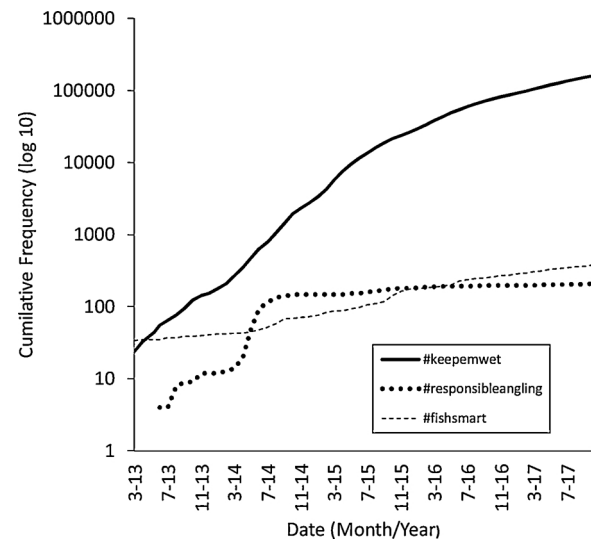


Fig. 1. Cumulative increase in the use of #keepemwet, #responsibleangling, and #fishsmart in social media posts from March 2013 to October 2017.

impacts and delay recovery of fish once released (reviewed in Cook et al., 2015); the hashtag #keepemwet began to be informally used by Bryan Huskey as a means to match a specific handling behavior with the broader conservation tool of practicing C&R. In comparison to other hashtag branding related to C&R on social media; such as #responsibleangling and #fishsmart; the term #keepemwet is directly associated to a discrete and easily definable action that anglers can use to reduce impacts on the fish they handle and release. Based on the rapid growth of the use of #keepemwet (Fig. 1); official KWF social media accounts (Instagram; Facebook) were created in January 2015 (Fig. 2) and the Keepemwet.org website launched in March 2015 (Fig. 3) as a means to formalize brand identity and build capacity for the broader campaign. Synchronous with the formation of the website; KWF began formalizing partnerships with members of the recreational fishing industry; including manufacturers; media producers; and travel companies. With these partnerships; news of the campaign grew; increasing the recognition of the brand; which has generated mean annual growth of #keepemwet use on social media of $17.7 \pm 8.9\%$ SD; compared to $11.2 \pm 14.0\%$ SD for #responsibleangling; and $4.4 \pm 2.1\%$ SD for #fishsmart (retrospective hashtag trends quantified using Keyhole; www.keyhole.co; Fig. 1).

With the development of the KWF website came the opportunity to directly communicate guiding principles and tips related to C&R, with the caveat that information being presented was in line with C&R science and/or a precautionary approach to the capture, handling, and release of fish. The three main principles currently promoted by KWF are minimize air exposure, eliminate contact with dry surfaces, and reduce handling (Fig. 3). One major motivation behind the KWF campaign is to ensure that all information matches the results of C&R science. Communicating science to the general public can be challenging, and the modes of how this communication is done can influence knowledge transfer (Weigold, 2001; Cooke et al., 2017). This is especially important when the intent of communicating science is to increase science literacy and change individual and/or group attitudes and behaviors (Hodson, 2003), as in the case of C&R science and whether anglers may or may not adopt best practices based on how evidence is conveyed (Arlinghaus, 2006). Related to this charge, in February 2017, FINSIGHTS was added to the KWF web site as a platform where the results from C&R scientific studies are translated to make them much more accessible to the recreational angling community.

In December 2016 the KWF movement launched its ambassador program beginning with high profile angling professionals. Although

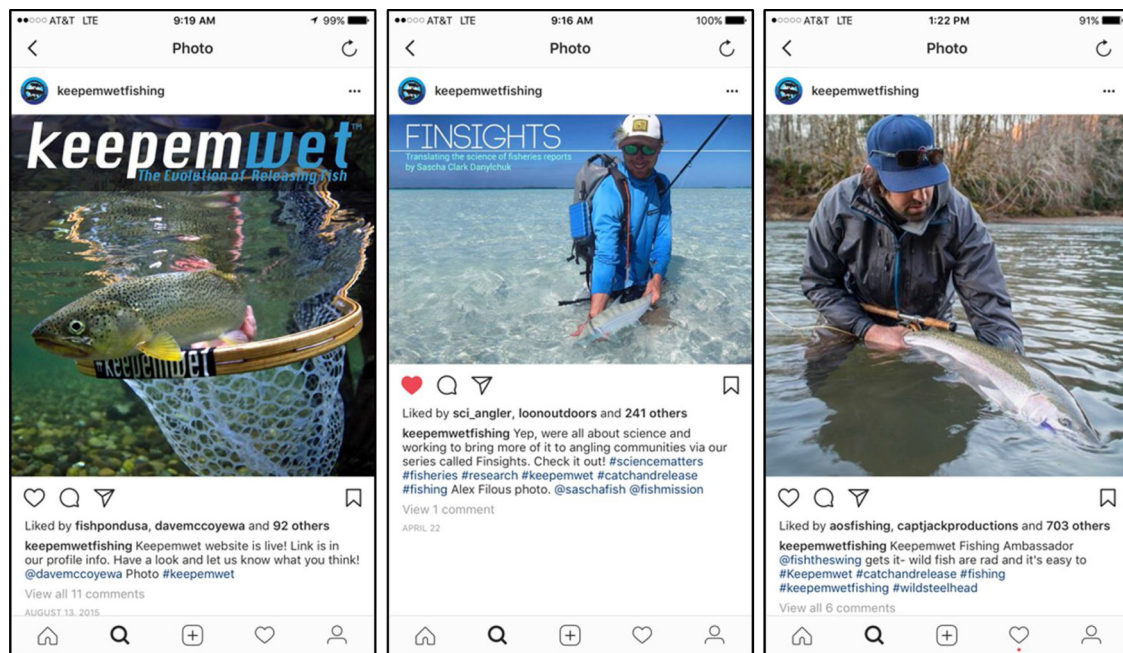


Fig. 2. Examples of Keepemwet Fishing posts from the Instagram social media platform.

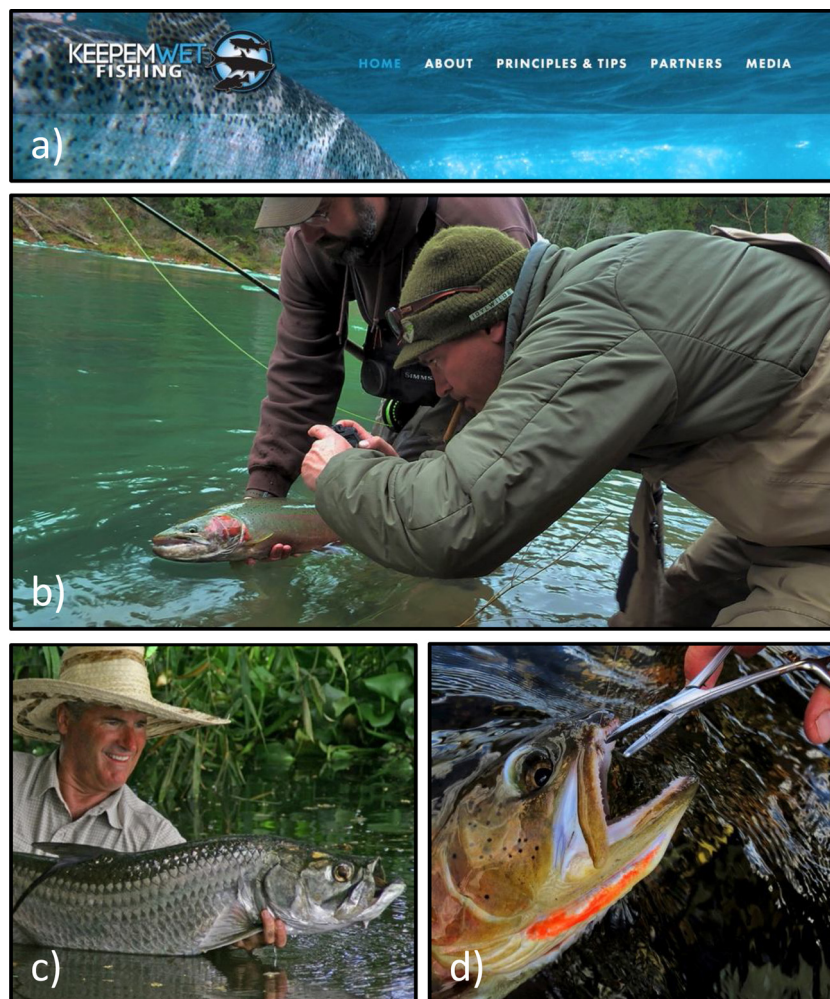


Fig. 3. Images from the Keepemwet Fishing web site showing a) the landing page banner, and examples of how to b) minimize air exposure (principle 1) while taking a photo, c) keep fish away from dry surfaces (principle 2), and d) reduce handling time (principle 3) by using small pliers to remove the hook while the fish is in the water.

similar to corporate brand and marketing strategies that use celebrities and sports stars to endorse products and services (Bush et al., 2004; Lear et al., 2009), the KWF ambassadors are invited to join with no financial or product rewards but instead are recognized formally as abiding by C&R guidelines set forth by the campaign, as well as their willingness to share the values of KWF in their professional activities. In this way, KWF ambassadors are helping to promote the brand by marketing knowledge and inspiration that encourages anglers to use behaviors that match scientifically validated best practices for C&R. If anglers begin to follow the behavioral attributes of high profile participants, including KWF ambassadors, and also use #keepemwet when posting images and stories on social media about their fishing exploits, they themselves become distributors of accurate information in their social networks (Abeza et al., 2013). This type of relationship marketing can be especially productive since it creates a dynamic dialogue across multiple communication platforms where those that receive knowledge (or product/service information) voluntarily share values with social peers as well as receive feedback through comments on their posts (Abeza et al., 2013). With social network 'leaders', 'role models', and 'heroes' such as brand ambassadors (Stevens et al., 2003; Bush et al., 2004) or block leaders used to promote recycling efforts (Everett and Peirce, 1992), there can be an increased potential for collective actions related to the environment and conservation (Kollmuss and Agyeman, 2002).

3. Benefits

Based on experience with the recreational fishing community including anglers, the industry, fisheries managers, and recreational fisheries scientists, KWF is the first campaign that is solely about conveying best practices for C&R. Although there have been government agencies and NGOs with programs on recreational fisheries that have included sharing C&R guidelines, there is evidence that the information they conveyed is not always complete or accurate (Pelletier et al., 2007; Sims and Danylchuk, 2017). In addition, if the C&R information is presented alongside other information about recreational fisheries (i.e., fishing regulations, habitat protection), the importance of the C&R messaging could be diluted, which could, in turn, reduce the potential to positively affect change in angler (consumer) behavior (Lee and Lee, 2004).

The nonpartisan nature of the KWF campaign, meaning not owned by any government or corporate entity, could be contributing to its acceptance and growth in the recreational fishing community. Resistance to government control and corporate manipulation can result in anti-brand communities that can turn consumers away from what might still be an authentic social brand (Hollenbeck and Zinkhan, 2006). In this way, KWF is very grassroots, which can be appealing to stakeholders (anglers) that are used to having their activities controlled through regulations (Lackey, 1998). Since KWF has developed a network of corporate and NGO partners that believe in the cause, however, KWF has broadened its reach through existing customer and partner relationships without eroding brand authenticity and brand trust. Given that C&R is not only mandated via regulations (e.g., size limits) but also a voluntary conservation action practiced by anglers (Cooke et al., 2013a,b), maintaining it as a grassroots campaign and overarching C&R brand could deepen its appeal throughout the recreational angling community. This may be especially important with growing societal interests in environmental issues and conservation, as well as consumer interests in 'green brands' (Chen, 2010).

What may also be aiding in the growth of the KWF campaign is that the brand name itself is essentially a slogan that can make it easier for anglers to evaluate brand quality (Rosengren and Dahlen, 2006). Specifically, the name itself reflects one of the most relevant scientifically validated best practices for C&R (reviewed by Cook et al., 2015). The name KWF also quickly elicits a mental image associated with the brand (Robertson, 1989) and a specific behavior related to how anglers should

handle their fish. In comparison, hashtag brands such as #responsibleangling and #fishsmart depict a broader sentiment related to recreational fisheries, with no discretely defined angler action. Making it easy for consumers to understand what a specific brand represents can greatly increase brand appeal (Belk and Rafferty, 2012). By using C&R science to demonstrate that changes in angler behavior can maintain or enhance recreational fisheries, the perceived 'good' and social contribution of the KWF cause-related campaign may also help create a long-term following within the angling community (van Rekom et al., 2014).

4. Challenges and future directions

Moving forward, it will be critical for KWF to build strong brand identity, personality, and trust, that can help reinforce brand quality within the recreational angling community (Carlson et al., 2009; Geuens et al., 2010). One challenge to this is that although KWF is trademarked and information on the website copyrighted, the use of #keepemwet in social media cannot be formally controlled. As such, #keepemwet has been and continues to be used in social media posts even when the images and sentiments do not accurately reflect scientifically validated best practices for C&R. Embedded in the cumulative growth of #keepemwet use in Fig. 1, there is uncertainty as to how the hashtag was used and if the user was consciously relating it back to the KWF campaign. To overcome this challenge, the KWF campaign can benefit from broadening its reach in the recreational angling community and further demonstrate its brand value and authenticity.

Currently, partners and ambassadors of the KWF campaign are almost entirely from the fly fishing segment of the recreational angling industry and community, which only comprises approximately 13% of angler participation in the US (US Fish and Wildlife Service, 2011; AFFTA, 2017), and likely less globally. Many anglers that fly fish already adopt C&R as a voluntary conservation action, thus they are likely more receptive to receiving scientifically validated best practices through the KWF campaign than anglers in other segments of the community that practice C&R because of regulations. This presents a two-fold challenge to the KWF campaign; first finding constructive ways to begin the dialogue with anglers that intend to catch-and-keep so that there is an understanding that by default they practice C&R when abiding by regulations, and second, to work with them to reveal that using scientifically validated best practices for C&R could ultimately benefit them by helping to ensure that fish they do release survive to be caught another day. Some of this could be overcome by KWF also developing species-specific guidelines to complement the general principles and tips already conveyed. Doing so could help reduce threat perceptions associated with mandated C&R. Changing the social norms related to C&R across all sectors of the recreational angling community may seem daunting, however, adopting creative marking and branding techniques used in the business world could help broaden the reach of KWF. As KWF continues to grow, it will be beneficial to track if and how the best practices for C&R are adopted by the various sectors of the angling community (e.g., government, nongovernment organizations, industry, anglers), and modify education and outreach strategies as needed.

Increasing the global reach of KWF also presents challenges. A lack of understanding in cultural differences in the motivations behind recreational fishing could result in ineffective marketing of the KWF brand. Translating the KWF guidelines, tips, and the C&R science behind accurate best practices into a multitude of languages can take considerable time and money. Overcoming such challenges may take finding international ambassadors that can help to translate KWF material into their native language, as well as champion the cause within their own social networks. The KWF campaign has already established some international ambassadors, yet more are very much needed to expand to a global scale.

As with any campaign, funding will limit the ability of KWF to

accelerate and grow. Marketing and branding can be expensive, as well as ensuring a core staff is maintained to provide institutional memory and continuity as the campaign matures. However, being a grassroots campaign that was started very organically by volunteers may help with brand identity and personality that ultimately creates a stronger campaign with loyal followers and avenues to funding that allows KWF to positively affect change in the recreational angling community.

5. Summary

The success of any grassroots environmental movement hinges on building a reputation for addressing interests of stakeholders and the needs of the environment, all within a framework that is accessible, reliable, and solution-orientated (Weber, 2000). KWF represents one of several grassroots movements focused on recreational fisheries, and its rapid growth is likely attributed to lessons learned from marketing strategies used in the commercial, corporate world. Other bottom-up movements in the recreational fisheries conservation arena (or even more broadly, nature conservation) may benefit by teaming up with business professionals to develop a brand strategy. Taking advantage of modern day communications platforms, such as social media, may also help increase brand exposure, as well as create an important platform where dialogues can occur. Given that many environmental issues can be addressed by changes in human behavior and that these behaviors are often nested in social norms, developing a campaign that can easily demonstrate to stakeholders how changes in behavior can produce positive outcomes may create the trust and brand equity needed for campaign effectiveness and longevity.

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