

Drone Fishing Trends, Concerns and Recommendations Unpacked

By [FINSA reporter](#) **01 July 2021**



Photo by Matt Pritchard on Unsplash

A new research paper addresses the growing popularity both globally and locally of marine recreational drone fishing. It's authors investigate regional trends and emerging concerns, and make recommendations that could potentially change the future management of this activity.

You either support it or you don't, but the use of unmanned aerial vehicles (UAVs) or drones as they are more commonly known, have caught on in angling circles. It's a contentious topic though because there are ethical, ecological, and social issues surrounding this form of fishing.

Social media platforms buzz with commentary when there is an article about drone fishing and a group of scientists have been following the conversation.

[Armchair Fishermen and the Ethics of Using Drones](#)

[Using Drones to Fish. Cool or Cop-out](#)

This has led to the recent publication of a paper titled "*The emergence of marine recreational drone fishing: regional trends and emerging concerns*" in the journal, *Ambio*.

Well known in South African commercial and recreational fishing circles, the authors (and scientists) of the paper are Alexander Winkler, Edward Butler, Colin Attwood, Bruce Mann and Warren Potts.

As part of their research, they have been scouring the internet to assess the growing demand on a global scale. They have been reviewing whether there is legislative policy anywhere, and they have shared information about what they perceive to be the potential consequences of drone fishing.

Google search trends

The paper makes for interesting reading because it draws on research from Google search trends.

The results show that globally interest in drone fishing activity happens in Australia, New Zealand and South Africa and to a lesser extent in Japan, USA and Greece.

There is also interesting evidence that this activity really gained momentum from May 2016 when an Australian angler captured a longfin tuna off a beach somewhere in New South Wales, Australia and posted the video on YouTube.

Following the release of this YouTube video Google searches for 'drone fishing' increased nearly 360% over the previous year.

By August 2020, the same video had gone viral and had been viewed five million times on YouTube as well as on other media outlets. And by February 2021, the global monthly search volume across a Internet variety of platforms equalled 14750 searches a month, while Google search volume was approximately 5100 searches a month.

Power of social media

As the paper points out “this growth and extent of interest in drone fishing not only highlights the increased interest in this new fishing method, but also the power of social media as a global communication tool....”

The authors also acknowledge the power of social media as “an important data mining tool for conservation scientists.”

They warn that fisheries managers need to take note of these types of rapid changes in new technology and techniques that improve the efficacy of recreational angling.

Furthermore, they suggest fisheries managers should maintain a presence on recreational fishing social networks to be more aware of trends in drone fisheries.

Drone catches assessed using YouTube videos proved to be the most diverse in Australian waters (20 species), while in South African waters drone catches are dominated by large [elasmobranchs](#).

The majority of the species captured by drone fishermen on YouTube in South Africa are dusky shark (*Carcharhinus obscurus*), bronze whaler shark (*Carcharhinus brachyurus*) and butterfly ray (*Gymnura natalensis*).

[South Africa’s Plan to Protect Sharks Needs an Urgent Update](#)

Legislation

The high percentage of [IUCN Red Listed](#) species observed in the drone catch, particularly in South Africa (69%) is of concern.

The authors found little evidence of any specific laws that prohibits the use of drones for the purpose of recreational fishing. However, legislation that bans the use of drones for other forms of resource use such as hunting, does apply in some countries.

Also, specific laws prohibiting the use of drones have already been developed for protected areas, high security areas, and areas where their use may infringe on the rights of other people in many countries.

In South Africa, there is a regulation in terms of the Civil Aviation regulations that prohibits recreational drones from carrying a payload. Technically this would then prohibit the carrying and dropping of a bait. However, this regulation has yet to be enforced in South Africa and is likely to be tested in a court of law in the not too distant future.

The [National Environmental Management Act \(1998\)](#) stipulates the use of drones is prohibited 2500 feet below the highest point of any national protected area without permission of the managing authority.

Drone pilots who make drone fishing possible by charging conventional shore anglers a fee to drop their baited hooks further offshore from some South African beaches, would need to be in possession of a commercial drone pilot's licence.

Recreational fishing guides that utilise drones to target fish for paying customers would therefore also need commercial drone licenses.

Ethics

While it is true that using recreational drones is an exciting new form of angling for some more affluent anglers, the authors says the "technology creep" associated with this form of angling is putting pressure on some threatened species that are vulnerable to exploitation.

[Why Some Recreational Fishers Misbehave... or Not](#)

The ethical debate around using drones to fish often centres on the argument of an "unfair advantage". Drone anglers are able to get baits out much further into deeper waters than an angler casting from the beach.

For similar ethical reasons, certain countries and states in the USA have banned the use of drones and other technological devices such as trail cameras for recreational hunting purposes.

Apart from the “unfair advantage” aspect, increased drone presence could very well result in increased conflict between other user groups such as privacy issues on beaches.

Ecology

Several ecological concerns are also raised.

The main one is that the use of drones is enabling anglers to target areas that have historically provided a refuge to certain fish species.

A particularly worrying species in this regard is the silver kob, *Argyrosomus inodorus*, in the Western Cape, the stock of which has been assessed as collapsed.

[Letter. SASI's Not Listening About Its' Listing Inconsistencies](#)

This species is targeted in wide surf zone areas that are beyond the reach of casting shore anglers, and nearer to shore than boat-based fishers can safely operate.

Because of drone angling, shore-based catches of silver kob are spiking in certain areas for the first time in decades. This trend may be presenting a false impression of the health of fish stocks because it isn't that easy to count fish, and scientists often base population sizes on how many fish fishermen catch.

[Report. Status of South Africa's Marine Fishery Resources – What's Changed?](#)

Identifying drone hotspots

Presently there are limitations to the use of drones such as the weight of the equipment which reduces angler mobility, and their reduced capabilities to operate in windy conditions. But this is likely to change as the technology becomes even more sophisticated.

Picking up on this the authors say, "identifying, assessing and managing individual drone fishing hotspots and their targeted species will likely be necessary for assessing the impacts of drone fishing."

Nowadays many recreational fishermen practice catch and release to comply with legislation or when targeting large trophy species such as sharks that are not considered good eating.

Unfortunately, in the case of drone fishing, fight time may be greatly extended which increases the stress on the animal being caught and reduces its chance of survival. Furthermore, with so much more line in the water the loss of tackle poses a greater threat.

