

Law Enforcement Session

Fish Shocking—"Skoal Box" Style

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Abstract: In the spring of 1979 an individual from Fort Worth, Texas, circulated a flier throughout Arkansas which advertised an electronic catfish unit that could catch more catfish than hoop nets, gill nets, trammel nets, fish traps, trot lines, snag lines, or most any other fishing devices. He further stated that as with anything that catches a lot of fish, the units are illegal in Texas, and are sold with the intention that they are used only on private lakes or stock tanks. What this individual has done, with the exception of making himself wealthy, is create a device capable of completely wiping out 2 species of catfish and an enforcement nightmare.

Proc. Annu. Conf. Southeast. Assoc. Fish and Wildl. Agencies 42:528-532

After spending 3 years researching these "electronic units," the use of which is also illegal in Arkansas, I am completely convinced they are one of the most devastating things ever invented. These units have the capability of completely depleting 2 species of catfish, namely flathead (*Pylodictis olivaris*) and blue (*Ictalurus furcatus*).

Under optimum conditions, these units are capable of harvesting as much as 6,600 kg of catfish per day. We have very reliable reports of 1 group of individuals harvesting 28,600 kg of fish in 8 days using 1 of these units. This particular case involved individuals who are commercial fishermen year round. Though we have several groups like this in Arkansas, they do not make up the bulk of individuals who would use these devices.

From May through October of this year we have made 17 arrests of people using these devices in our enforcement district. Their harvest ranged from 220 to 1,400 kg of fish per arrest. This is the general norm that we encounter most often during our arrests.

There is no one group or class of people that the use of these devices can be attributed to. You have commercial fishermen, bass fishermen, crappie fishermen, a man and his wife out on a weekend camping trip, and the "good ole boys" out for a day of beer drinking and boat riding; the individuals who enjoy having fish fries for a group of friends on a regular basis all use the devices to catch their fish. This is why we have so many of these devices in existence today. It seems like everyone who recreates around the water possesses one of these devices.

What are these electronic devices? Simply stated, these devices are a low voltage generator. They take 12 volt DC current and put it into motion or pulsate it. This is accomplished by an integrated circuit time/oscillator. The whole circuit consists of the timer/oscillator, 5 resistors, a capacitor, and a LED indicator light. You can purchase all these components at any electronics store for under \$5. When all these components are assembled correctly, you have a fish catching machine.

All these components are usually concealed in a snuff tobacco can and covered with body shop putty to add weight so it will sink in the event the individual has to throw it away. A Skoal box is used because of the popularity of this type of tobacco, thus the name "Skoal Box" has stuck with this device.

When hooked to a 12 volt battery, the "Skoal Box" emits a low frequency of 10.86 hz. This low frequency interferes with the catfish's equilibrium, causing it to become disoriented and come to the surface where it can easily be caught with a dip net. The amperage put out by this unit is almost non-existent. At its maximum it is only 0.0125 mamps.

Since the "Skoal Box" circuit will work when hooked to any power source of 5-15 volts, it is not necessary to use a heavy, 12 volt, auto battery. You can tape a 9-volt transistor radio battery to the "Skoal Box" and use it for your power supply with the same results as the large car battery. This adds to the difficulty of enforcing prohibition of the use of these units.

"Skoal Boxes" will work in water with or without current in it, so they can be used anywhere the 2 species of catfish exist. The only other requirement is that the water temperature be $>16^{\circ}$ c. Temperatures of $\geq 21^{\circ}$ c are the ideal temperatures.

As of this date we have not made any arrests on lakes within the state. All arrests have been on rivers. The soft, mud bottom on most of the lakes in our area may absorb the frequency emitted by the "Skoal Box," thus hindering its effectiveness in lakes.

Rivers, with many sunken tree tops, rock dikes, and pilings, offer supreme habitat for the 2 species of catfish. Individuals who use the "Skoal Boxes" know this. It is interesting to note that not every one of these types of structures will have fish present. In our research we have found that its possible to go as much as 8 km before you find where any are present. The one thing you can be sure of is that the people who use these devices know where every one of these structures that will have fish are located. This can become a great enforcement advantage if the wildlife officer also knows where these places are.

Using a "Skoal Box" is a very simple matter. They have 3 and sometimes 4 wires attached to them, depending on where they are purchased. The fourth wire is merely a second ground wire that makes it easier to establish a ground to the boat. Regardless of the number of wires present, they all hook up the same. The individuals that manufacture these devices usually make sure they use the standard color code for electrical wiring used in most boat hook-ups. The red wire is attached to the positive terminal, the black wire to the negative terminal, and the third wire, which is usually green, goes to the wire you put in the water. Some devices we have seized use yellow wire instead of black, but this varies. To complete the hook-up of

this device you simply strip the insulation off about 1 m of heavy duty wire and lace it through about 40–43 cm of heavy log chain, making sure it is tied strongly to one end and the other end is connected to the green wire of the device. Establishing a ground depends on your power source. If your battery is hooked to your motor, then you only need to connect your positive and negative wires to their respective posts. If your power source is not connected to your motor then you must establish a ground from the negative terminal to your boat. This is easily done with an additional wire from the negative post to your boat or have it submerged below the water surface by a conductive material.

The actual use of the “Skoal Box” varies according to the imagination of the persons using them. The first involves the use of only one boat with usually two people in it. One operates the motor and the “Skoal Box” while the other dips fish. This is a very effective technique, but its main drawback is that the individuals take the chance of the wire becoming entangled in the motor’s propeller or hanging up in the tree tops or rocks as they maneuver around to dip fish. Most of the individuals we have arrested are these kind of boat operators.

Those individuals who are really serious about obtaining large quantities of fish use two boats. One boat uses the device while the second boat follows closely behind dipping the fish. This technique will yield many times more fish than will the use of one boat.

Enforcement Techniques

Enforcing the illegal use of these “Skoal Boxes” is, without a doubt, one of the most difficult tasks a wildlife officer will ever face. Every encounter will be unique. This one thing is what makes the enforcement of the use of these devices so difficult.

If you have flathead and blue catfish in your state and the water temperature reaches $>16^{\circ}\text{C}$, then you have people using the “Skoal Boxes.” Think about those individuals in your state who are always bringing out these 2 species of fish when it seems like no one else is catching them. We have found in talking to other wildlife officers from other states that someone always comes to mind.

As a wildlife officer, you must determine if you have a problem with these devices. From the undercover work I have done, I can, without a doubt, state that “Skoal Boxes” have been sold to individuals in at least 10 southeastern states and are being used.

In my opinion, trying to make an arrest for using these devices by putting a boat on the water with hopes of an apprehension is useless. There are many ways they can side step having fish in the boat. Those individuals that use these devices on a regular basis will have the necessary license and tackle to show to the wildlife officer if demanded. One of the favorite techniques used by many of these violators is to set out legal fishing tackle, use the “Skoal Box” and put the fish in a hidden live net. After being assured there are no wildlife officers around, he will go back and pick up his legal tackle and the fish he caught with the “Skoal Box” and return to the landing where he put in. If a wildlife officer shows up, this individual will

appear to be legal. Another technique is to have individuals meet him at designated points along the river who pick up all the fish and "Skoal Boxes."

These devices are small and easy to drop overboard when a wildlife officer approaches. This makes me feel as though an officer is wasting his time trying to catch violators on the water. The possession of large amounts of catfish is not sufficient grounds to search the individuals or their boat. Without any prior knowledge of any illegal activity, the officer cannot legally make an arrest.

Sometimes the individuals who use these devices will either get careless or are not worried about being checked by a wildlife officer. Quite often the wildlife officer can detect tell-tale clues when he or she checks these people. Large numbers of catfish with no fishing tackle, statements that the fish were caught with hook and line and no hook marks are visible, wire lying in the boat, a battery in the boat that has a manual start motor, several ice chests, and dip nets in the boat all could provide enough evidence that could possibly create enough probable cause to do a search of the individuals and the contents of the boat and make an arrest. Situations like these do occur quite often, especially when it involves what I call the novice user of these devices.

The most effective way of catching the individuals that use these devices is to be there when the devices are used. The main problem with this is the time involved in waiting for the perpetrator. You will be amazed at how effective this technique becomes when the wildlife officer spends the time to convince the general public of the threat these devices pose on the natural resource and how important it is for them to get involved in reporting any use of these devices they witness to their local wildlife officer. In my enforcement district the majority of our arrests have been made because the sportsmen recognize the dangers of these devices and they have decided to get involved in stopping their use. With this type of cooperation, this enforcement technique is much easier. However, if an officer uses this method he should realize that he will spend many hours and sometimes days waiting for the perpetrators. A pair of binoculars and a camera are necessary equipment. If a spotting scope or video camera is available this is even better. In recent months we have had tremendous results videoing individuals using these devices. This really makes going to court something to look forward to.

Court Relations

No matter how much time is invested or the numbers of individuals arrested, unless the wildlife officer has a good working relationship with his court system, it may all be in vain. It is strongly advised to make the judges in your judicial system aware of how these devices are used and the great impact these can have on this particular natural resource. We have shown our judges first hand how these devices are used and how effective they are. We have been successful in court partly because we did this and you may too if you take the time to acquaint your judicial system with the problem.

Conclusion

All of us, as wildlife officers, must realize we have a very dangerous threat to a natural resource with the widespread use of these "Skoal Boxes." We must continue a strong enforcement effort to prohibit their use and educate the sportsmen to recognize this danger and solicit their support. We must also work with our courts to make sure they understand this threat. If we do not do these things, we are going to see a natural resource severely depleted right before our eyes.