

Catching & Keeping Live Baits

Introducing Part One of a special four part series all about live baits - finding, catching and storing them (either naturally or with the latest power infusion pumps) in this very special series by top scientist, fisherman and author, Scott Bannerot.

Report, Pics & illustrations by Scott Bannerot

I'd like to take this opportunity to briefly introduce myself, and offer F&B readers an explanation for why in the heck some Yank is writing for their topnotch magazine. In short, it's all Damon Olsen's fault. Here's what happened. Some 20 years ago I ended up with a doctorate in fisheries analysis from the University of Miami, then, having worked in fisheries for nearly ten years while operating charter fishing boats part-time, switched over to full-time captaining in the Florida Keys for another five years. By that time I'd refitted a 41-foot aluminium sloop, fully outfitted for offshore and inshore fishing expeditions, and my wife Wendy and I set off in 1995 to fish, dive, and sail our way around the world. We washed up in Queensland some eight years later after extensive wandering and soon met Damon, who invited me along to document some of his activities with Nomad Sportfishing. We had so much fun comparing tricks and techniques between Australia and the southeastern U.S.A., and all the other places in the Caribbean, Central America, and tropical Pacific we'd



visited, and learned so much from each other, that we got together with Peter Webster and decided it'd be a shame to keep all of the exchange to ourselves. Wendy and I had already published a fairly extensive summary of all the things we'd learned, from all kinds of fishermen scattered across the world, The Cruiser's Handbook of Fishing (418 pages, copyright 2000 & 2004 by International Marine, a division of McGraw-Hill Companies). By using that as a foundation, and adding in all of the current nuances and technology from Down Under and the extremely competitive Florida/Bahamas fishing industry, we hope to produce a set of cutting-edge articles designed to boost everyone's fishing success and fun out on the water. We have learned a great deal from Australian fishermen, and we are extremely interested in combining these ideas with those from across the world. Please don't hesitate to join in with your own thoughts and contributions—we know we'll learn a tremendous amount from you, and we hope these articles will provide a creative springboard for us all.

F & B

First, Catch The Live Bait!

Part 1/4

Fishing live baits with the right tackle and technique out-produces most other strategies—but first you've got to catch them.

The first four articles in the series take a comprehensive look at catching and maintaining live bait, probably the largest single barrier between the average angler and those who have attained professional-grade levels of success. A very high percentage of the questions I get at seminars are about how to break down this wall and get to the other side.

We'll begin by taking a thorough look at worldwide methods for collecting all kinds of live bait...after

all, what's the use of having a killer live well the size of a Jacuzzi if you can't catch the bait?

Here in Islamorada, Florida Keys the charter fishing business is booming, and for much of the year success with the prime target species depends heavily on the success of catching live bait. It's the same story for many other fisheries around the world, whether it's Aussies catching yakkas for bait and switch billfishing or a Tongan charterboat catching otule (bigeye scad) for a pre-dawn go at dogtooth tuna. The expertise applied to the early morning bait quest largely determines the quality of the fishing day, which means that the top captains are invariably the top bait catchers. What does it take to get good at this process?

The Biology of Bait

A good fisherman is a good biologist. Knowing where, when, and under what conditions a specific species will be present is over half the battle. The other half is possessing the technology to catch them once you find

them. Let's begin with the first part, expertise in marine biology.

Consider the vast array of prey items on the menu of the hundreds of marine game fish species. Depending on those you wish to target, the appropriate subset of this array might include slow-moving invertebrates like yabbies that reside in sandy intertidal zone burrows in eastern Australia, mole crabs (or "sand fleas") that bury up to the antennae in the eastern U.S. surf zones, marine segmented worms (polychaetes) and assorted mollusks like clams, scallops, top snails, and conch that live on or in the sediments or rocks. Some more mobile invertebrates like crabs, crayfish, prawns or shrimp, or even squid, can be deadly tossed in the path

Author throwing a 3 m (radius) net just inshore of Crocker Reef, Florida Keys. This is the smallest net professional guides might use in an area like this, where we are typically targeting ballyhoo (garfish), cigar minnows, or pilchards. Photo by Wendy S. Bannerot.



of marauding predator fish.

Mention the words “live bait” and many anglers would first think of silvery, flashing baitfish, any one of countless varieties with representatives worldwide: silversides, anchovies, herring, pilchards, jack mackerels (these include yakkas and yellowtails), mackerel scad, cigar minnows, goggle-eyes (also called bigeye scad), menhaden, assorted small mackerel species (slimy mackerel, Atlantic mackerel), jacks, and trevallies. Folks fond of sailfish, mahi mahi, and tuna might picture garfish, ballyhoo, or flyingfish. Reef fishermen would conjure a variety of bottom species - sweetlips or grunts, emperors, porgies, sea bream, pinfish, mojarras, porgies, small snappers - that big cobia, amberjacks, grouper, coral trout, and snappers love to eat. Live mullet appeal to almost any piscivorous predator. Big game bluewater specialists will imagine bait fish that for many of us are target species - like school-sized skipjack and yellowfin tuna, striped bonito, and mackerel tuna. I had a shark specialist on my boat the other day, and our bait was a whole live 25 kg amberjack.

Assorted Bait-Catching Equipment

The vast variety of live bait organisms we have just touched on makes it obvious that the diversity of capture methods is nearly as great. Tell you what, let’s first review the spectrum of equipment, and then we’ll move on to some very specific tricks and techniques for catching bait with selected gear. One of the most amazing aspects of our travels has been the sheer number of different ways humans catch fish for bait and for food.

Simple techniques and equipment succeed for the slow-moving and burrowing invertebrates: hand capture, yabbie pumps, clam rakes, hand shovels. Pursuit of the faster-moving invertebrates can be a little more exciting and innovative, for example ingenious traps of many forms and designs for crabs, crayfish, shrimp and prawns, and even octopuses. Perhaps the most interesting invertebrate live bait capture technique is catching live squid using either a special jig on spinning gear, or a long handled dip net, after night-lighting them to the vicinity of the boat. Small otter trawls can also be effective for capturing



Above: Capt. Skip Nielsen throwing a 3.66 m (radius) net for ballyhoo (garfish) on a patch reef offshore of Islamorada, Florida Keys. This is the standard size used in this area.

Left: Emptying ballyhoo (garfish) into the live well after his successful cast net throw.

inshore squid species that live in shallow grass, sand, or mud-bottomed bays. A simple PVC-frame tow net, deployed from a boat or from a bridge spanning an inlet, is effective for catching live shrimp and prawns when they are running at night.

The same long-handled dip net used for squid also works for flyingfish that meander in to the halo of the night light. Micronesians use a modified dip net and strong spotlight to catch flyers at night, racing through areas where they’re common, startling them in to flight, and then scooping them in midair just like kids netting butterflies. I know some of you think I’m pulling your dorsal fins, but it’s true. If you think that’s weird, people in the southeastern Caribbean islands actually catch live flyingfish with scoop and gill nets after they berley and attract them to the boat with a longline of sugar-cane bundle FADs (I’ll have an entire article on this later). Flyers, like garfish or ballyhoo, and many other species, will also take a small baited hair hook on light line.

Hook and line is also the general category for the capture of many other

bait species. Recent years have seen an immense expansion in the design and marketing of sabiki rigs, multiple-hook quills attractive to most planktivores, usually weighted, dropped deep, and then jigged in short twitches - pilchards, goggle-eyes, yakkas, yellowtails, you name it, they all fall for these things like kindergartners for lollies. Larger offerings - bucktail jigs, small soft plastics, octopus skirts, trolling feathers, small metal jigs and spoons - are the go for the mackerels and tunas coveted by those seeking bigger game.

Hoop Nets

If we were to hold a contest for the most popular baitfish in the world, at least in the tropics and subtropics, the winner might well be the mackerel scad. Take a look at the photo on page 305 in the 9th edition of *Grant's Guide to Fishes* by Ern Grant—Yanks and Aussies actually call this fish the same name, although locally in the Florida Keys fishermen refer to them as speedos. These fast, silvery, highly active baitfish are normally 250 to 450 mm (10 to 18 inches) in length. They occur on outer reef slopes, usually in 10 to 15 m depth or more, and although they can be caught jigging and by using a few tricks in conjunction with very large cast nets (4.27 m or 14 foot radius minimum), Keys charter captains out-catch all other methods for this species using a hoop net. Three dozen or more of these in the live well guarantee anglers the best possible shot at everything from wahoo, billfish, tuna, and large mackerel to big bottom fish.

Here's how it works. Like most baitfish, mackerel scad are extremely sensitive to any object flying through the air above them, or any lateral movement in the water around them. Their first reaction is to "hit the deck" en masse—sounding rapidly to the bottom, essentially reducing their vulnerability by transforming their environment from three to two dimensions. The hoop net takes advantage of this tendency by deploying deep, and then retrieving upward - the reverse of a cast net.

The only place I've seen hoop nets like this is aboard offshore charter boats in the Islamorada, Florida Keys area, virtually all constructed by the same veteran net maker (for reasons unknown he refuses to be named - you

know how some of these old sea dogs can be - so I'll call my friend "Carl"). The hoop itself can be stainless steel or aluminium rod of approximately 13 mm diameter, formed in a perfect circle of diameter 1.2 to 1.8 m. Carl more often uses catfish trap rings that he orders in from Louisiana. These are an opaque, resin-like material, and they're extremely durable.

He constructs a fairly fat, cone-shaped "bag" of monofilament netting to the hoop, mesh size 25 mm to 38 mm (1 to 1.5 inch) stretch. He secures a 4 to 8 ounce (.11 to .23 kg) egg sinker to the apex of the bag or cone, forms a heavy monofilament bridle terminating in a large barrel swivel, to which he splices 15 m or so of 10mm three-strand nylon retrieve line to finish the product.

Once the captain has this contraption on board, he heads for the outer reef drop-off to one of the spots known for mackerel scad. The schools tend to hover over heavy coral in 10 to 15 m depth near the reef crest, particularly if a sharp-dropping wall to 30 m or more lies just offshore. These fish also like to hang around floating reef markers, the ideal description being large steel nun buoys moored in their favorite depth. That said, mackerel scad can be caught considerably deeper, for example in at least 35 m depth on the outside of steep reef walls. If they're really thick you might catch them on the drift, but it's far more common to anchor, after dragging a suspended mesh bag with a fresh block of frozen

chum (berley) around the area to round up the bait. The next trick is to have a bucket of mixed berley and sand, with the texture just sticky enough to adhere together in a nicely packed, cricket-ball size. Come tight on the hook, throw some loose handfuls of sand/berley mix to cloud the water and drive the mackerel scad crazy. Now gently deploy the hoop net down a good 5 m or more. Shake the chum bag, and toss a tight pattern of three or four sand balls up-current of the expected upward trajectory of the bag, followed by another loose handful. The trick is to pull that submerged hoop net up hard just as the school of mackerel scad comes swarming up into the cloud of sand balls. Their vision is impaired by the turbidity, and they are feeding voraciously on the bits of chum. When they eventually sense danger, they sound right in to the net as it sweeps up to greet them.

I'll pass along two last observations since I know there'll likely be some innovative readers constructing hoop nets after reading this. First, I'm

Below: Here's one of the top charter boats of Islamorada, Florida Keys, the *Yabba Dabba Doo!* anchored and all set up to begin hoop netting mackerel scad. Deckie Justin Baker (left) has a handful of sand/berley mix ready to toss in to the water. The berley bag is suspended from the starboard transom cleat. Capt. Steve Leopold is just lowering the hoop net in to the berley slick.





Left: Justin has thrown a pattern of four cricket ball-sized sand/berley balls into the slick, Steve has waited for the mackerel scad to swarm vertically up into the cloud of sand and berley, and has now started to pull the hoop net up to greet the school as hard and fast as possible. Justin is just about to stomp loudly on the deck to spook the fish down into the ascending net.



Left: Success! That's a nice load of mackerel scad Steve is swinging aboard the *Yabba Dabba Doo!*



Below Left: Here's a close look at the Florida version of a mackerel scad. Compare this to the photo of the eastern Australian mackerel scad on page 305 of the 9th edition of Grant's Guide to Fishes. As you will see, they're essentially identical. Mackerel scad occur worldwide in the subtropics and tropics, and are deeply revered as baitfish throughout their range.

virtually certain that using a clear acrylic hoop instead of an opaque material, similar to that used for the rims of professional-grade, monofilament-mesh tropical fish collecting nets, would be far more effective. Carl agrees and has experimented with the idea, but he says this material tends to shatter easily if it smacks the side of the boat or gets other rough treatment, and he hasn't yet found any transparent material that can take the punishment. Second, fixed-hoop renditions of this net are bulky and take up a lot of room. A hoop that breaks down easily for storage would be immensely valuable, particularly on small open fishing boats where space is at a premium.

We need some Aussie ingenuity here to help us out, and I might add that no one is producing a commercial version of this net despite considerable demand. Note that hoop nets work well for at least several other fast-diving bait species that respond to berley.

Cast Nets

Hoop nets, even where they're popular, represent a specialty bait-catching device used probably no more than 20 to 30 percent of the total bait-catching time. Gill nets—straight monofilament-mesh fences with a float line on top and lead line on the bottom—are in general fundamentally flawed with regard to the capture of live bait because they regularly entangle and damage the fish they catch. Seine nets, including purse seines, are highly effective but seldom practical for a sport fishing operation attempting to quickly fill a live well with bait en route to the grounds with the minimum possible gear. Few types of equipment can rival the compact storage and high efficiency of large (3 to 5.5 m radius), professional-class monofilament cast nets, hence their widespread popularity around the world for catching all manner of fish and invertebrates for food and for bait.

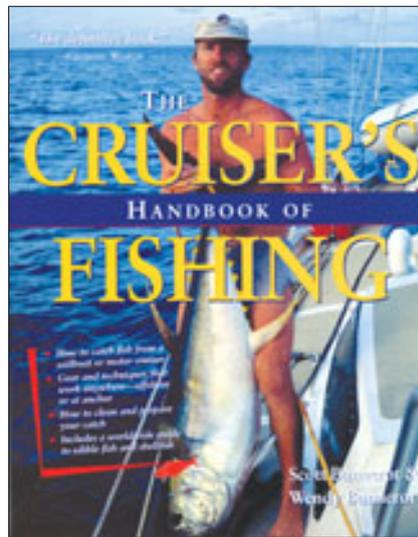
We spend from page 189 to page 200 of *The Cruiser's Handbook of Fishing*, including 25 photographs, describing every detail of how to throw a large pro cast net "Keys style". This method results in the longest distance and best spread of any I've witnessed, possibly because the livelihood of the fishermen who

developed it absolutely depends on maximum performance in this particular part of the world. We'll of course need to fast forward for the purpose of this article through all of the net-throwing details, and, mind you, I have seen many Aussies proficiently throwing their cast nets so it's not like many of you need a new method right away. Instead, we'll focus on some deadly techniques for catching bait with cast nets, assuming that you own one and are getting it to open well. The only proviso is that most of the nets I've casually observed at least in Queensland are less than half the size of what the professionals use in Florida, and the majority of the bait these Keys fishermen exploit using the techniques we'll describe would be very difficult to catch, most of the time, with cast nets smaller than 3.65 m radius.

General Principles

Feeding behavior dictates strategies for cast netting assorted baitfish species. Those that respond well to berley slicks and tend to stick near the surface, like garfish and under some conditions sardines, sprat, herring, pilchards, and the like, might succumb to simple berleying and netting as they swim up close enough to the boat. Others, like cigar minnows and yakkas, almost always require mixed sand and berley balls in addition to the standard berley slick - the standard sequence being to shake the bag, fire out loose handfuls of sand/berley mix to cloud the water, then toss a pattern of three to six cricket-sized sand/berley balls into the cloud, and throw the net with crown centered on the murky region of water. Now toss a couple of sand/berley balls *on top* of the descending net. The fast-swimming baitfish spook entirely out from under the net when it hits the water, but their downfall is that they quickly re-group, then swim back under the net and attempt to rise up in to the sand and berley cloud that is falling below, and just above, the large descending parachute of monofilament. Of course other species, for example most of the mullets, don't respond to berley at all and must be stalked and cast netted as they swim near the surface in schools. This strategy works for a number of other schooling bait species, particularly when they are flipping at the surface on very calm mornings.

Regardless of bait target species, here are a few tips to stick under your cap for the next outing:



Much of what we are going to enjoy (and learn) from Scott in this unique fishing series over the next 12 months emanates from Scott's book, **The Cruiser's Handbook Of Fishing**. Published by McGraw-Hill in the U.S., it is available here from Boat Books branches and good bookshops everywhere. It is one of the most interesting fishing books I've ever read - and highly recommended.

Read the signs. Wind velocity, wind direction, moon phase, tidal stage and flow, air and water temperature, time of year, time of day, bird presence and behavior, water clarity, degree of cloud cover, recent weather events, barometric pressure, current weather pattern, wave action, phytoplankton blooms, predator fish location and abundance, and many other variables influence the behavior and position of baitfish at any given time. The more you understand every small detail of the biology and ecology of the bait you seek, the more successful and consistent will be your efforts to find them.

Use your electronics. Switch your depth-finder to high frequency (usually 200 kHz) for detailed views of shallower waters. Learn to identify fish by species according to what you see on the screen. Search habitats like channels, banks, and sharp breaks in the bottom that project plankton and other food items to baitfish schools in a turbulent flow. Pay particular attention to abrupt, steep gradients in an otherwise featureless seafloor. Check out known focal points for baitfish presence, like shark nets off Queensland beaches, and maintain a meticulous GPS waypoint library of

these places.

Once located, think about the most efficient way to catch them. Should you drift, power-drift, anchor, push-pole, or use an electric motor? Are you spooking them with engine noise?

Try never to get between the sun and your quarry. Shadows cast by you or the boat, especially superstructure or masts, and certainly by the airborne net, make fish nervous and give early warning at the time of the net throw. If you are anchored and the lie of the vessel created by wind and current casts shadows over the berley slick, consider some combination of an anchor bridle and altered berley-bag placement to eliminate the problem. One possibility is to suspend the bag laterally with the aid of an outrigger.

Adjust your berley bag when the current runs into the prevailing wind. Most of the times when you anchor and deploy a berley bag to attract bait, the slick flows cooperatively away from the transom. Baitfish approach from downwind, allowing you to throw the cast net off the wind. Conversely, if the current is in to the wind, positioning the baitfish in the slick for a downwind net throw requires re-positioning the berley bag out away from the transom (throwing a cast net in to the wind is worse than the proverbial urination equivalent). We usually fly a fishing kite out from the transom, tighten the release clip, and suspend the berley bag vertically from the kite-line clip at an appropriate distance (much more on kite fishing later in the series).

I'll leave you with two last tricks. First, if you're cast netting garfish or hoop netting mackerel scad, stomp on the deck loudly just as the cast net hits the water or just as the hoop net is pulling sharply upwards. Garfish will jump *up* in alarm, mackerel scad will sound *down* in alarm, in both cases resulting in much higher catches when timed properly. Second, if you're anchored at night, and baitfish have begun to swarm around the boat eating the plankton and other organisms attracted to the light, and you are getting ready to cast net them, have your fishing partner flick off the light just before the net leaves your hands. This literally puts the fish in the dark, they can't see the silhouette of the net coming, and you'll catch many times more than if you'd left the light on.

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