Moon Cycles and Fish Behaviour

Neil Grose | May 2010 » Regular Features / Area Report /

The Moon and its phases would have to be one of the most significant forces on the planet.

Apart from making the tide go in and out, it is reputed to have many different effects on man and beast alike. The term lunatic is derived from the behaviour of people who appeared deranged on a full Moon – some anglers also appear deranged with their fishing as well!

So I guess it isn’t too much of a jump to study fish’s behaviour in relation to Moon cycles. Behaviour of saltwater species and tidal movement is linked – this is one of those undisputable facts of fishing (and there aren’t many of those), but how do the different phases of the Moon effect fish behaviour in both fresh and salt water?

There are many coastal cultures around the world that predict fishing success or failure according to Moon and Sun cycles, and indeed here in Australia we have a published predictor, the Anglers Almanac (published by The Great Outdoors Publications Pty Ltd). But what are the principles behind it, what real application does it have, and the big question, do they work?

Moon and Sun cycles

Before we head off into the major questions surrounding fishing activity and the Moon, we probably should take a little time to explain how the Moon affects the tide. The Moon orbits the Earth, and the Earth orbits the Sun. The Earth spins as well while it orbits the Sun, one rotation of the Earth is a calendar day, and one orbit of the Earth around the Sun is a calendar year.

Both the Moon and the Sun have a gravitational influence on the Earth, which is reflected in the tides. It is primarily the gravitational pull of the Moon that makes the tide go in and out – it pulls the water towards it.

As the Moon moves around the Earth the force of the pull moves with it as well; this is why tides run in and out.

The Sun also has a significant influence as well. When the Sun, the Moon and the Earth are in alignment we see the most gravitational pull on the tides. These are termed spring tides, which feature the highest of the high tides, and the lowest of the low tides. When the Moon and the Sun are at opposite angles, we see the least influence on the tides, called neap tides. These see the lowest of high tides and the highest of low tides. Each has their advantages and disadvantages when it comes to fishing.

There are 8 phases of the Moon:

New Moon
Crescent Moon waxing
First quarter
Gibbous Moon waxing
Full Moon
Gibbous Moon waning
Last quarter
Crescent Moon waning

Tide times

Tide times are 50 minutes different every day, due to the Moon taking an average of 24 hours and 50 minutes to return to the same point – the Moon takes 50 minutes longer every day to return to the same location over our given piece of water, hence the time difference.

So if high tide is at 1pm today, it will approximately be at 1:50pm tomorrow. Different locations see varying amounts of time between high tide and low tide, and indeed the period of slack water at the top and bottom of the tide.

Fishing and the Moon/Sun cycle

There is a strong argument that fish activity is also related to Moon and Sun activity in addition to any influence the tides may have. While this is very prevalent at spawning times for various species, it also has a strong correlation to feeding times. These two factors (feeding and breeding) are probably the biggest single influence in angler’s success or failure.
The Angler's Almanac is based upon the theory of Moon above and Moon below, and coincides with theories of indigenous peoples around the world.

In its simplest form, the best times to fish are when the Moon is above the angler's head and when the Moon is on the other side of the Earth below the angler's feet.

When the Moon is half way between these to points there is also a minor period of activity.

Peak activity is described as when the Moon is above and below, and another shorter peak of activity is when the Moon is half way between these 2 points. So in any given fishing day you are likely to get a major period (Moon above or below) and a minor period (Moon half way between above and below). There are two majors and minors in 24 hours, but usually only one of each during daylight hours.

The Moon of course still moves above us, even during the day, we just don't see it as well as we do on a clear night.

What it all means on the water

I have been comparing data and observations while guiding and fishing for the past 15 years to the information supplied in the Angler's Almanac. This has predominantly been in fresh water, but also covers plenty of days in the salt. I guided on a professional basis between 1998 and 2007, which totalled 1,138 days on the water, the overwhelming majority have been diarised.

I have to preface all this by stating that this is what I have found; others will no doubt have different experiences and thoughts.

The Angler's Almanac (which is the easiest source of tables in a printed format) lists peak times during the 24 hour period. It also categorises days into 'best', 'good', 'fair' and 'poor'. These are calculated on the phase of the Moon and Sun, although I have found in practice that they don't have as much impact on proceedings as expected – I have had awesome days on poor predictions, and the opposite on best predictions.

The key for me is the times of peak and minor activity – here in lays the real value of the tables.

Freshwater lakes

I first started taking notice of the Almanac in 1996. I was matching my results to the Almanac, and after a while a clear pattern began to emerge. The major times as predicted saw good activity, but not necessarily fish on the end of the line.

The minor periods (6 hours after the major) would see a shorter period of action, but a much better catch rate. If there were long periods of predicted 'poor' days, then the overall activity would be reasonably poor, with spikes in activity to coincide with the predicted times.

If there were several 'best' days in succession then the fishing would be good with an increased level during the predicted times.

If there is one constant throughout it is the observation that the weather and general conditions will always over-ride any predictions. It doesn’t matter how good the almanac predicts a day, if it features a howling southwest wind, the barometer through the floor and it’s pelting with rain it generally ain’t gonna be a great day!

trout pre-spawn activity

The closer that trout get to spawning time the greater the influence the Moon cycles have on them. On Great Lake you can just about set your watch to them! You had to find the fish first of course, but once located they would go silly in almost perfect concert with the predicted times.

If the major time isn’t until 5pm, then you’d know you are in for a lean day till then. It isn’t that you won’t catch anything till then, it is just that you would experience a definite increase in activity once you approached the predicted time.

Saltwater

This is where the whole theory originates from. Some indigenous cultures living on the Pacific basin have long associated the Moon and its cycles with fishing success. For them it is a life and death imperative; we fish for sport, they fish to survive.

Many bluewater anglers plan by the Moon, however my experience with the open blue waters is very small, and really can’t be taken into consideration.

Estuaries and coastal bays are a different subject though, and I am convinced that the species such as bream, trevally, Australian salmon and the baitfish that they predate on are strongly influenced by the Moon and Sun cycles.

A key example is the huge increase in bream captures in estuaries during November and December. This broadly coincides with the majority of bream spawning activity in Tasmania.

Saltwater species in general are heavily influenced by the lunar cycle in their reproductive habits, both in terms of their actual spawning, and their heightened feeding activity prior and post spawning.

Examples are numerous, but one key one is a day I had in late December 2006 in the Derwent River. The bream were in full spawning mode, and while this was later than generally accepted, they were on the job none-the-less. The day in question was rated ‘good’ by the
Almanac, and the best times were a major period from 1pm to 3pm, and a minor period at around 8am.

We hit the water at 7am, and by the time we had hit a mud bank and extracted ourselves (don’t ask) we started fishing seriously at a bit before 8am in the morning. The fish were on the job straight away and around 15 or so were caught and released before 9:30 am. The bite quietened off significantly, with fish coming every now and then, and many nips and tweaks rather than full on takes.

Heading up river, we spent an hour or so looking for fish, until about 1pm when the sounder turned nearly black with fish. For the next two hours it was fish after fish, and by 3:30pm the score was well over 50 really solid bream. These fish were pretty easily caught during those times, and were noticeably less so during the intervening period.

Another example is with Australian salmon, one of my favourite species. The day in question was rated by the Almanac as ‘poor’, yet the fishing was anything but!

The day itself was perfect; very light wind, very overcast and humid. Baitfish were extremely thick on the surface (as they often are on overcast days), and the salmon really appreciated the opportunity. Fishing deep prior to the activity on the surface during the minor period resulted in a few small fish.

As the major predicted period approached, the activity on the surface increase to the point where we were getting results from nearly ever cast. Now the Almanac had predicted a poor day, but as stated before, I believe that conditions will over-ride the Almanac; in this case excellent conditions mean good fishing, especially so during the predicted good time.

So to summarise

As I stressed at the beginning, these are my observations based on my time on the water. I take great notice of the times predicted in the Almanac, and try to plan my fishing day around them.

I have noticed key differences in activity according to the Almanac, whether it is chasing trout in the highlands or on streams and in saltwater from Cape York to the Derwent River.

The Almanac, and more importantly the Moon and Sun stages that support them can help maximise your fishing results, even if it is only an aid to when you start or finish, or when to take lunch!

It can help enormously with confidence as well; I know that when I fish inside the predicted good times and on the ‘best’ rated days I fish with extra vigour and expectations.

Certainly food for thought and I definitely recommend that anglers at least investigate the Moon and Sun influences, even if you end up a sceptic.

Images

Timed around the moon - Full moon
The author getting in some relaxation

Expansive highland lakes
Calm seas offshore

Sometimes the Almanac and the actual fishing do not match
Calm days