ASTRAL MAGIC FISHING
by Bob Boese

There is a fine line between science fact and science fiction. Sometimes it is a fishing line. Let me suggest you pour yourself a drink before you start this.

It was one of those "Rainy Season on the Bayou" months when it only rained twice a week – once for three days and once for four days. Claudette had a list of honeydos just waiting for the weather to get bad, so Bubba avoided the house even more than usual. During one escape he went to his Uncle Jasper's to get some free advice. Bubba's Uncle Jasper catches fish every time he goes out. The trick is, Jasper spends about one evening a month figuring out when astronomical conditions to catch fish will be right, and only goes out then. Bubba doesn't get it. For Bubba a calendar is only good for figuring out when holidays and weekends are coming, and when Claudette is going to be in a bad mood. Myself included, most fly fishermen are more Bubba-ish than Jasper-ish.

Let's start with easy stuff. **Barometric pressure** is the measure of the weight of the atmosphere above us. It exerts pressure on fishermen and fishing waters. In shallow waters, it effects fish feeding habits. A barometer measures this weight of the atmosphere per square inch (of pressure) and compares it to the weight of a column of mercury (Hg). The height to which the mercury rises is directly proportional to the pressure of the atmosphere. Meteorologists measure this in "millibars" (the international measure), but most Americans use "inches". One inch equals 33.86 millibars and, at sea level, normal pressure is 29.92 inches of mercury or 1013 millibars, with the records being 32 inches in Siberia down to 25.7 inches in a Pacific Ocean typhoon. A big weather change can be affected by only a 0.5 inch change with 30.5 bringing fair sunny skies and a 0.5 drop accompanying storms and wind, while a 1.5 inch drop often means a hurricane. Fish in deep water are surrounded by water with greater pressure than the atmosphere so they are essentially unaffected by barometric changes. In shallows, however, fish feel the pressure change through their lateral line system and usually react. How they react is a matter of debate because one theory suggests that lower pressure makes tiny organisims (zooplankton) more buoyant so they float off of the lake bottom and baitfish come out to feed, hence larger predators are more active. The contrary theory suggests that the winds and storms brought by a pressure drop stirs the water and makes feeding more difficult. The compromise theory says that predator fish anticipate murky water with the start of the pressure drop and feed as soon as they get that pressure signal. If true, dropping barometric pressure in shallows should provide feeding action in a 3-4 hour window. [There are also off-the-wall theories that pressure affects various internal organs of fish causing them to swell and predator fish eat because of anticipated discomfort and don't eat when the discomfort arrives.]

Jasper once took Bubba aside and tried to explain astronomy. Now Bubba never thinks about any location much further than a tank of gas will get him and the most he ever considered his relationship with the stars was once when he went to an astrologer and punched the guy out for saying Bubba was a Cancer. But when Jasper said the stars and stuff would help you catch fish, Bubba was willing to listen, even if he figured Jasper had been drinking Sterno. After a while Bubba was reminded of a television show he saw once where this magician made the Statue of Liberty disappear. Bubba didn't believe that either.

(If you haven't started that drink yet, now's a good time.) In the 1930s science started playing a much larger part in fishing strategy. The **Solunar Theory** was devised around this time, as curious folks were trying to figure out why fish and animals feed when they do.[1] After 31 other nature related factors were eliminated, it was decided that the location of the sun and moon worked a kind of magic because they are the two major sources of astral energies that effect Earth. It was known that the closer they are to Earth, the stronger the influence. So...they postulated that...billions of years ago, when the moon was formed (there are three scientific theories how it happened – extruded Earth magma, coalescing gasses, asteroid collision with Eath -- but that's not important here), it started moving away from the Earth. [Today the orbit of the moon actually moves away from the Earth about 1.5cm each year.] Supposedly, in Darwinian fashion, the once very significant prehistoric lunar influence (giant tides, etc.) was imprinted on early Earth life forms and remains today, embedded somewhere in Earthly DNA. Accordingly, all creatures (including man) react to the proximity of the moon. [In fact, more crimes are committed and more babies are conceived during a full moon than at any other time, hence, a "lunatic" is someone with moon madness.]

The Solunar Theory says that the solar (sun) influence is both invisible (electromagnetic force and gravitation pull) and obvious (dawn starts activities that cease at dusk) and the lunar (moon) influence is all invisible (gravitational pull and electromagnetism). For non-werewolf humanoids, the invisible effects are not apparent or even noticeable, but fish and animals apparently can tell. The periods of greatest creature activity (not just fish are influenced) last from 1.5 to 3 hours depending on the moon's relationship to the sun. It gets difficult to compute because it takes the sun 365 days to complete its cycle (summer to winter and back to summer), while the moon finishes a high/low cycle every month. The times of sun-moon combined influence are called Major Periods (of activities like feeding), and there are intermediate times (when the moon is on the horizon) between these that are called Minor Periods (that for some poorly explained reason are also supposed to influence activity). Because of the movement of the Earth, moon and sun, these periods occur at different times at different Earthly locations.

Jasper has a pretty healthy mailbox income from oil on his spread, so he has the time to correlate solunar periods and he has learned that the sun has basically three major periods of influence: dawn, noon, and dusk. Most fish feed during these periods. We know when the sun is up, but moon rise can occur anytime (mid day to mid night) and sunlight or overcast can make it impossible to see a moon rise or set...and a dark/new moon is simply not visible. During a full moon, the sun and moon are nearly opposite each other and one or the other is in the sky through a 24 hour period. During a new moon, the sun and moon travel the skies together with their forces combined. Because of lunar and solar cycles, no two days are identical. BUT,

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The SolunarTheory is usually attributed to John Alden Knight, the author of "*Moon Up...Moon Down*" (Solunar Sales 1972), "*The Modern Angler: Including the Solunar Theory*" (C. Scribner's Sons, ltd. 1936) and "*The Theory and Technique of Fresh Water Angling*" (Harcourt Brace and Company New York 1940).

Jasper has realized that when the combined influence of the sun and the moon is taken into account, mystical things happen.

[Got that drink handy?] The very best time is supposed to the peak of the full or new moon passing overhead or opposite the globe (underfoot). Solunar specialists say to focus on the daily rise and set of both the sun and the moon, and when a maximum solunar period (six hours after moonrise or moonset) falls within 30-60 minutes of sunrise or sunset or if the solunar period occurs near dusk or dawn and corresponds with a new or full moon. [The only time one of the lunar periods overlaps dawn and/or dusk is during a half-moon phase and the only times one overlaps the high-noon (sun overhead) and/or mid-night (sun underfoot) solar periods is during the new and full moon phases.]

As Bubba half-listened to Jasper, his mind wondered to memories of lunkers and cold beer when the words "high noon" got his attention. Bubba wasn't sure what Jasper was saying, but he knew fish didn't bite at noon simply because it was too damn hot. Bubba was wrong, of course.

Noon presents several interesting scientific phenomena worth considering. First, fish see better (particularly they see colors) in brighter water. Second, the intensity of sunlight tends to increase production of zooplankton and hence encourages the presence of baitfish. Third, these baitfish use shadows the sunlight creates to provide many different hiding spots, whereas they may otherwise avoid any movement during shadow- free periods. Fourth, noon and times soon thereafter, warm the winter waters encouraging cold blooded fish to become more active. Fifth, this location of the sun has the greatest astral influence (gravitational and magnetic) of any other time of day.

Let's consider an example. Suppose the moon is passing overhead (lunar influence) in the three hours before dawn. On that day, when the sun rises (solar influence) the moon has set. Fish activity might be okay during that entire time, first because of the moon, then because of dawn. But, after a few days the moon rise and the sun rise may coordinate, and at this time the solunar (sun and moon) influence will, in mysterious and magical ways, produce much more fish activity.

Bubba wouldn't spend money he could otherwise use for beer on anything connected with solunar tables. But, for those who are willing to invest, understanding ***why*** *it works isn't nearly as important as understanding* ***when*** *it is supposed to work. Here's how to know when.*

Free solunar tables are available from the following sites:
http://www.flwoutdoors.com/solunarTables/
http://bassresource.com/bassfishing/fishing_solunar_moon.html
http://www.in-fisherman.com/reference/solunar/calendars/
http://aa.usno.navy.mil/data/docs/RS_OneDay.html
http://www.fishingreporters.com/moon-phase-calendar/solunar-tables.htm
http://sports.espn.go.com/outdoors/general/news/story?page=g_fea_astro_tables

Detailed tables are available for a fee from:
Primetimes2.com (Wall Calendar $12 CD $30) and Solunar.com (Table $12)

An electronic version (incorporating many factors) is available from Speedtech.com (the Anglers Edge Plus Fishing Predictor) for $95.00.

Many other local weather factors can influence the success of a fishing day, but that's for another day and a new drink.