

The Orbit of Yih and Its Effects on Yinrih Biology and Culture

Yih is the name of the yinrih homeworld. *Yih* is one of only two instances of Commonthroat loanwords in English, the other being the word *yinrih*. These words are better thought of as onomatopoeia mimicking yinrih speech sounds as humans and yinrih cannot actually utter one another's languages. Its Commonthroat pronunciation is [yip, short high strong whine, huff]. The word means "ground" or "earth", naturally enough.

The following figures ignore the more complex aspects of orbital mechanics. I've assumed a circular rather than elliptical orbit with no variation in speed due to perihelion and aphelion, nor have I accounted for solar vs sidereal days and years.

Yih is about 1.3 astronomical units away from Focus. It has an orbital period of about 1.4 Earth years, and a rotation period of about 24.38 Earth hours. There are exactly 528 Yih-days per Yih-year. Yih has an axial tilt of exactly 30 degrees, meaning that the planet's surface area is evenly divided among tropics, mid-latitudes, and polar regions.

Yih has a ring, meaning winter days are darker and colder (although not by as much as you might think) and summer nights are brighter. "Chasing the end of the ring" is a proverb meaning to go on a fool's errand.

As stated in another post, yinrih and the other creatures in their clade have a far broader visible spectrum than humans, meaning you don't see niches divided into diurnal and nocturnal like you do on Earth. Yinrih don't sleep per se. They have an active period that lasts about 11 days and a period of torpor that lasts 1 day, with the cycle taking a total of 12 days. They don't actually lose consciousness fully during torpor. It's more like how some birds and dolphins sleep, where only parts of the brain are inactive. They experience dulled sensation and a feeling of detachment, but are still somewhat aware. It's like the anesthesia they give you for cataract surgery. Yinrih may not even be capable of losing consciousness at all without dying, and may find the fact that humans spend 30% of our already pitifully short lives asleep as existentially disturbing.

Since Yih doesn't have a moon, there are no months. Since the yinrih progressed technologically so rapidly after gaining sapience (achieving spaceflight a mere 5 Earth millennia after becoming rational) they don't have a week (which was originally based on the seven planets as reckoned in ancient times on Earth). Whether they have intermediate time division between day and year is to be determined, although they probably do.

The torpor cycles of individual yinrih aren't in sync, so there's no stretch of time where everyone is inactive light nighttime on Earth. However, within individual families in the very early days of yinrih history, and today among the Amish-like Atavists, the dams and pups would go into torpor together, while the sires would stagger their torpor cycles so that some can rest while others keep watch.

Clerics are not allowed to beget young, and are expected to spend their torpor period in the sanctuary near the star hearth (liturgical nuclear fusion reactor) in the event that it needs attention. In smaller, more traditional communities and *especially* aboard orbital colonies, this duty is more than ceremonial. The star hearth may be the only power source for the community.

Particularly traditionally-minded clerics will spend at least part of their torpor period repeating the following prayer in time with their breathing:

(breathe in) *May my soul be a mirror*

(breathe out) *reflecting the Uncreated Light*

Clerics hold short liturgies three times a day during their own active period, at sunrise, noon, and sunset. The faithful are expected to assist at at least one liturgy during their own 11 day active period. The liturgies aren't particularly long--an hour at most, and usually more like 30 minutes.

There are five principle high holy days, one on each of the solstices and equinoxes, and one commemorating the dawn of sapience or the Kindling of the Fire of Understanding, which they count from the first evidence of written language. (They *evolve* a written language rather than inventing writing much later, so it's a fair assumption to equate the two). Both the daily liturgies and yearly holy days are supposed to be reckoned according to the local planetary orbit and rotation unless the timings deviate from those on Yih to such a degree that they become a burden, in which case the Yih calendar is followed. Orbital colonies follow the calendar of their parent planet. Moons may have a local calendar if it isn't too far off the norm, but often follow the primary planet's calendar like orbital colonies do. The exceptions to this local-first approach are the Feast of the Fire of Understanding and, after meeting Humans, the Feast of First Meeting. The Feast of the Fire of Understanding is celebrated at the same time everywhere according to the Yih calendar, and First Meeting is a movable feast set according to the Gregorian calendar.

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