

The Nullarbor - Fuel Stove Only?

A Discussion Paper

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Over the last 30 years, visitation to the Nullarbor Plain, particularly the Western Australian sector has been steadily increasing. Whereas, it could be speculated that visitation was once confined to the late Spring - early Autumn period, casual perusal of literature suggests that caving expeditions now take place at any time of the year. Even winter excursions to the Nullarbor can be quite mild in comparison to other parts of the country at the same time of year.

Quite apart from the stress this places on certain cave environments due to intense activities within those caves [eg. Mullamullang, Thampanna], the surface environment can also be stressed through degradation of ground cover and habitat destruction. This may have a direct/indirect effect on caves and all levels of cave fauna.

The Nullarbor Plain is an arid, sparsely vegetated and populated region with an approximate average annual rainfall of 255mm per year. This "figure" is derived from averaging the [average] rainfall figures from the following points - Mundrabilla Stn. 235, Madura Stn. 266, Balgair Stn. 274 and Nullarbor Roadhouse 245mm/yr. Compare this with the average annual rainfall for Perth 869, Adelaide 550, Hobart 623 and Sydney 1219mm/yr. [Source: Bureau of Meteorology] While the majority of the Nullarbor interior is vegetated by low saltbush and bluebush - from which it derives its Latinised name, the coastal limestone strip is moderately forested. Most caving activity, and thus camping, occurs within or close to the forested section.

It has been traditional for campers in modern times to have campfires for warmth and to a lesser extent these days, cooking. Cavers are no exception. However, it could be argued that cavers [most likely the majority of Nullarbor long-stay visitors] who persist in having frequent campfires are having an impact on the surface environment of the Nullarbor Plain and hence, cave fauna through the depletion of surface fauna habitat and erosion.

The principle land use of the Western Australian sector of the Nullarbor is grazing. While grazing can and does have a periodic impact on vegetation, it is mainly confined to grasses, saltbush and bluebush. Dead or fallen timber is largely unaffected. Anecdotal comment suggests that better rangeland management in recent times has seen the incidence of land degradation by domesticated animals [at least in relation to grazing, not hoof action] diminish.

But what are the possible effects of Nullarbor campfires? High on the list would be the risk of wildfires which has prompted some leaseholders to ban campfires on their properties at certain times of the year. [No wildfire has ever been attributed to cavers] The largest effect of campfires however, could be depletion of habitat for fauna that live in and around [dead] standing and fallen timber [close to caves]. This fauna would either directly or indirectly provide nutrients for cave fauna when they are either washed in during wet weather, fall while venturing too close to an entrance or become prey to cave-based predators.

Dead standing and fallen timber on the Nullarbor is usually small, not abundant, and becomes desiccated under the extremely arid conditions so, when burnt, is quickly consumed, thus requiring larger quantities than would be otherwise devoured over the same timespan in the more temperate regions of Australia where fuel is larger and more plentiful. With the tendency for cavers to camp [or be directed to camp] in specific areas close to caves, standing or fallen timber in the immediate area can quickly become exhausted, especially when "pyromaniacs" who insist on huge nightly bonfires are involved. Timber is then "imported" from further afield during the

course of excursions to more distant caves whilst still based at the original campsite. This in itself could cause problems through unwittingly transporting "foreign" fauna from one region to another quite apart from the fact that the supplies would most likely have been gathered fairly close to the visited cave/s thus potentially compounding the problem.

Such a scenario has been long recognized in Tasmanian areas of high visitation, where multitudes of backpackers in National Parks depleted standing and fallen timber [habitats] and caused erosion over vast areas, especially along the Overland Track between Cradle Mountain and Lake St. Clair. The reaction of the managing body to the combined risk of habitat destruction, erosion and wildfires was to [build lengthy boardwalks and] declare these regions "Fuel Stove Only" areas.

Should the caving community be more aware of the effect they can and do have on a region and consider doing the same with the "timber impoverished" Nullarbor Plain - or other areas throughout Australia for that matter? What does "Fuel Stove Only" mean?

Basically, my understanding is that it means what it says - portable fuel stoves [gas or liquid] are the only authorised cooking source, standing or fallen timber is not to be used for open campfires or cooking. As most cavers now carry portable fuel stoves in one form or another, there is rarely need for any type of campfire other than the periodic boosting of sagging morale.

It is not unusual to cave in areas with active picnic/campfire bans. In WA's Leeuwin-Naturaliste Ridge the local council implements an automatic fire ban from October to March in order to minimize the risk of wildfires. The WA Department of Conservation and Land Management "enforces" the non-collecting of [dead] standing or fallen timber [for picnic/campfires by provision of mill off-cuts] in National Parks of the L-N Ridge [and elsewhere, fire bans permitting] on the grounds of fauna habitat protection. There are probably restrictions in other parts of the state or Australia for the same or similar reasons. Other land managers overcome the fire risk/fuel type by the provision of gas or electric barbeques, either free or coin operated. Are clubs aware of any restrictions in their regions of activity?

The purpose of this discussion paper is to draw speleologist's attention to a situation I believe has developed in various areas on the Nullarbor Plain in recent times. The Nullarbor is not well endowed with [dead] standing or fallen timber, timber that provides habitat for fauna. As frequent visitors to an arid region where recovery from degradation must be considered extremely slow, we should be more aware of our collective effect on the overall environment and temper our use of the Nullarbor's meagre timber resources by having fewer campfires or none at all? Surface fauna deserve to have their habitat protected just as much as the more sensitive troglobitic fauna. Should we therefore seriously consider instigating a "Fuel Stove Only" policy at either society or ASF level?

Such a move on the Nullarbor and perhaps in similar regions elsewhere, could only serve to enhance the standing of caving societies amongst land managers throughout Australia.

Effect of localised campfires:

1. Risk of wildfires,
2. Destruction of local fauna habitat by denuding areas of fallen or standing dead timber,
3. Depletion or elimination of cave fauna by the destruction of prey species habitat,
4. Erosion of soils "close" to some caves, through timber gathering [or parking],
5. Importation of fauna [contained in timber] to an area where they do not exist,
6. Depletion or elimination of local fauna by the importation of a more successful or aggressive species.