

## TRAPS AND TRAPPING IN THE ARU ISLANDS

CHRISTOPHER HEALEY  
NORTHERN TERRITORY UNIVERSITY

### Introduction

This report is a preliminary survey of trapping methods in the Aru Islands.<sup>1</sup> The exploitation of forest resources is an important component of the local economy in those Islands. An integral aspect of this exploitation is the use of a variety of traps of both traditional design and more recent adoption.

In most subsistence economies with a heavy reliance on the exploitation of wild animals, trapping is an important element of production. With the investment of only a little labor, and using readily available bush materials, traps enable a person to devote his (and less often her) attention to other activities.

Given the interest among ecological anthropologists in productive efficiency, energy, and work budgets, it is surprising that so little attention has been paid to the organization and productivity of trapping as an integral component of subsistence strategies. Dwyer's (1989, 1990) account of traps and trapping among the Etolo of the Great Papuan Plateau is one of the few exceptions in recent anthropological literature.

There is little in the way of detailed accounts of traps and trapping methods in Eastern Indonesia, despite the importance of forest-based subsistence strategies (see Ellen 1978, 1988; Ishige 1980). Certainly,

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ethnographers have provided brief details of trap construction, but trapping as an important aspect of subsistence production has attracted scant attention. The significance of trapping in the contemporary cash economy in Maluku remains virtually undescribed.

As for the Aru Islands, there is a paucity of published ethnographic information on contemporary subsistence. Patricia Spyer's (1992) dissertation is the only substantial modern ethnography of the islands.<sup>2</sup> Various authors in the 19th century remarked upon the valuable products of the Aru Islands, but mainly from the point of view of European commerce (Baron von Hoëvell 1890, Brummund & Earl 1853). How those products reached the market and were integrated into local subsistence economies remains little described. Wallace (1869) provides some rather general notes on subsistence practices in the Wanumbai (Manombai) region of central Aru in the early 1800s. Baron von Hoëvell (1890) and Riedel (1886) are more substantial sources on Aru Island ethnography for the late 19th century (see also Merton 1910). Since then, of course, the indigenous Aru Islanders have been drawn ever more into the Indonesian nation and a changing world economy, to the extent that talk of the *dunia ekonomi* is not uncommon in the villages.

The objectives of this paper are modest: first, to help fill in the lacunae in the ethnography of a little-understood, but locally important aspect of material culture and productive activity by providing a preliminary descriptive account of a variety of trapping methods employed in an Aru Island community. A second objective is to indicate the place of trapping in the traditional and contemporary economy of the region as a contribution to Aru Island ethnography.

The brief fieldwork on which this report is based is part of an ongoing collaborative project on social transformation and resource utilization in Maluku. This project involves researchers from Northern Territory University in Darwin and Universitas Pattimura in Ambon undertaking fieldwork on urban social process in Ambon city (Dr. David Mearns, Northern Territory University), social linkages in Soya Atas, Ambon (Drs. Tonny Pariela, Universitas Pattimura), and production for subsistence and the market in Garogos, East Seram (Dra. Hermien

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<sup>2</sup>Spyer's fieldwork was carried out in the Barakai-speaking community of Barakai island in southeast Aru. The economy in Barakai is significantly oriented to the sea, much more so than is the case of the community reported in this paper.

Soselisa, Universitas Pattimura). My own contribution to this project has included surveys of the exploitation of forest resources in the Aru Islands and western Seram, where I am also collaborating with Dr. Margaret Florey of La Trobe University, Melbourne, on a related study of Alune ethnozoology.

For this project, I spent six weeks in Maluku during October and November 1991 undertaking consultations at Universitas Pattimura and a preliminary survey of the research potential of the Aru Islands. I spent almost three weeks in the Aru Islands: three days in the local administrative and commercial center of Dobo on Wamar Island, and 15 days in the village of Jirlay, Kobroor Island, where the bulk of my data on trapping were recorded.

The indigenous Aru Islanders use a larger variety of terrestrial and arboreal traps than is commonly the case elsewhere in adjacent regions of western Melanesia and Eastern Indonesia, and I suggest that reasons for this may lie in the particular role of trapping in the subsistence and market sectors of the local economy.

### **The Aru Islands**

The Aru Islands are located at a geographic, cultural, and historic point of contact between the Melanesian and Eastern Indonesian regions. Administratively, the Aru Islands are a part of Kabupaten Maluku Tenggara in Maluku Province. Biogeographically and culturally the Aru Islands are an outlier of the Papuan region. The New Guinea mainland lies a mere 150 kilometers to the north across a shallow sea. The other nearest landfall is the Kei Islands, the same distance to the west. Kei marks the eastern limit of the Wallacean biogeographic region that forms the transition zone between the Southeast Asian and Australasian regions. The central Arnhemland coastline of north Australia is some 550 kilometers south of Aru.

The archipelago is made up of three main islands and a plethora of smaller islands, numbering about 180 in all. The islands extend for some 180 kilometers from north to south, and about 80 kilometers from east to west. The total land area is estimated at 10,200 square kilometers. A distinctive feature of the Arus is the network of narrow channels that separate the main islands of the group. The islands are formed of raised limestone beds (Wallace 1869). While the terrain is dissected by chains of hills and narrow clefts, nowhere does it rise more than about 80 meters

above sea level. In some areas there are extensive coastal and inland swamps.

The natural vegetation of the islands is predominantly lowland rain-forest, extensively fringed by mangroves along the coast and tidal watercourses. In the south the forest cover is replaced by drier savannah dominated by pandanus palms. The flora and fauna are derived primarily from the New Guinea landmass. The Arus mark the southwest limit of distribution of three species of birds of paradise common in mainland New Guinea. The islands share with New Guinea the absence of indigenous large land animals other than the cassowary, although the feral pig is no doubt an introduction of some antiquity, and the rusa deer has also become common in the last few centuries.

There are twelve Austronesian languages spoken by indigenous Aru Islanders (Hughes 1987). Only seven of these have more than 2,000 speakers. Material for this paper was obtained among one such language group known as Dobel, in central Aru.

The total population of the Arus is approximately 49,000, distributed in 122 villages and the single town of Dobo, which serves as the administrative and commercial center of the island, where the majority of the roughly 15,000 inhabitants of nonindigenous origin are settled.

The Aru Islands are a rich source of marine resources. However, production and marketing is controlled by Chinese merchants based in Dobo and elsewhere in Eastern Indonesia, and by foreign companies. Indigenous Aru Islanders share little of the wealth generated by these commercial ventures.

The contemporary livelihood of villagers is based upon subsistence slash-and-burn horticulture (the principal crops being cassava and maize), the processing of sago, hunting of large game in the forest, and fishing in inshore waters. Most families also earn modest sums of money through low-paid wage labor for commercial fishing and pearling companies, and from the sale of a diverse range of marine and forest resources to merchants in Dobo.

In the distant past, many of the indigenous Aru Islanders lived as nomadic foragers in the interior forests. However, far from being isolated from outside influence, they were an important source of forest products for the great luxury trade passing through such centers as Ternate and Tidore in North Maluku, Makasar in South Sulawesi, and entrepôts further west. Principal among these forest goods were bird-of-paradise

skins, edible birdnests, and aromatic woods and gums. In exchange, interior people received arak, iron, porcelains, brass gongs, and ivory. The town of Dobo grew as a center of trade, drawing sailors and merchants from the Malay Archipelago as well as from further afield (Wallace 1862).

While the Aru Islands had long been part of an international network of trade (see Andaya 1993, Ellen 1987, Spyer 1992), and were nominally under the suzerainty of the Sultan of Tidore in North Maluku, the Dutch found little to attract them to the islands. Although Dutch traders operated in Aru regularly from at least the early nineteenth century, and officials made occasional visits, colonial control was not consolidated until the early 1900s (Abeyasekere 1976, Wallace 1862), and it was not until then that any concerted effort was made to settle interior nomadic groups in permanent coastal villages.

In contemporary views of villagers, sedentarization and conversion to Christianity is presented as marking a critical turning point in local community history and its relation with the wider world. In many respects, however, notwithstanding the adoption of swidden horticulture, the local organization of subsistence remains characteristic of an enduring foraging economy, as this has been typified by recent contributions to the study of modern hunter-gatherers, with its emphasis on a diversity of sources of subsistence. The diversity is manifest both in the variety of different pursuits of different households at the same time, as well as variation in the emphasis on different strategies within a particular household over time (Bird-David 1992). In Aru, strategies include hunting and gathering in the forest and fishing in the rivers and sea, maintenance and processing of individually owned sago groves, swidden cultivation, exploitation of forest resources for market sale, and seasonal or occasional wage labor. While a permanent village site may appear to limit the flexibility and productivity of foraging, it also provides a stable residential and organizational base facilitating the maintenance of diverse strategies of subsistence. Households frequently move to temporary residences in gardens and at sago groves and hunting camps dispersed throughout the forest zone.

Sedentarization of the indigenous population has continued under the Indonesian government, with the great majority of villages being established on the coast. The village of Jirlay, where data for this paper were collected, is one of only about three villages located any distance from

the coast. It is located in north central Kobroor Island, a large island in the center of the archipelago. It is the most westerly Dobel-speaking village, the majority of Dobel speakers living on the eastern and southern edges of Kobroor. Jirlay is a relatively small village by contemporary Aru standards, with just under 300 inhabitants.

Because of its distance from the open sea, the subsistence economy is oriented to the land and interior far more than is the case in most other Aru villages. The mainstays of the diet are garden crops (principally cassava), sago, which grows in small, scattered plots in wetter parts of the surrounding forest; and meat of game such as wild pig, cassowary, and rusa deer.<sup>3</sup> A variety of other game is also captured for cash sale. Principal among these are skins of birds of paradise, and live cockatoos and parrots.<sup>4</sup> Traps are a crucial component of the technology for obtaining game for local consumption and trade.

As elsewhere in Maluku, Aru society is characterized by dualistic divisions at a number of structural levels. At the highest level these are known in Aru as Ursi'a and Urlima (corresponding to the divisions Siwa and Lima elsewhere in Maluku [see Cooley 1962, Valeri 1989]). In central Aru, most villages belong to the Ursi'a division, which is itself divided into two semitotemic sections named Fanaan and Akwan, each with its own *adat* pertaining to marriage and other practices. Whole villages and their constituent, nominally patrilineal, semilocalized clans belong to one of these divisions, which are named after birds. Fanaan refers to the greater bird of paradise *Paradisaea apoda*, associated with the forest and inland. Akwan is the local name for the black butcherbird *Cracticus quoyi*, common in mangroves, and associated with the coast and saltwater.

Jirlay village falls into the Fanaan division. I recorded a local opinion that in olden times it was only people of Fanaan who knew how to make traps and kill the *fanaan* birds, valuable items of trade. Elders controlled access to specialist knowledge of trap construction, and those wishing to

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<sup>3</sup>Deer are not native to Aru, but may have been introduced by early Portuguese voyagers.

<sup>4</sup>The sale of live birds of paradise and their skins is prohibited. The capture and sale of several species of parrots for the pet trade is either prohibited or subject to government regulations. Villagers express their own concerns about the need to conserve stocks of wild birds to ensure their continuing involvement in illicit trade.

learn how to make traps were expected to make small offerings of tobacco and sirih to the elders. Since those times, other Aru people have acquired knowledge of trapping, which is no longer monopolized by Fanaan people.

### **Dobel classification and construction of traps**

At least eight different types of terrestrial and arboreal traps are still in common usage in Jirlay. A variety of fishing traps are also employed, but are not considered here.

Terrestrial and arboreal traps are collectively called *wusin-nai*. They fall into two main types: *laflafar*, which are varieties of spring traps, and *rungum*, deadfalls.

Spring traps are often referred to simply as *lafar*, although this term also applies to a particular type of *laflafar*. The common characteristic of these traps is the use of a noose to capture prey, pulled tight by a flexed spring pole when a trigger mechanism is dislodged. Three subtypes are named: *yal tu'u*, *lafar*, and *nerkul*.

*Yal tu'u* comprises three quite dissimilar traps. The focal type is a series of noose traps set vertically in gaps in fences and barriers laid out on the forest floor for 100 meters or more. The height and sturdiness of the barrier, and the size of the gaps and the nooses set within them, depend on the intended prey. Traplines set for small prey, such as smaller wallabies, terrestrial birds, cuscuses, and large rats may have rather low, flimsy barriers of cut branches that deflect small animals towards the gaps set with traps. Larger prey, such as deer and pigs, require more sturdy barriers and traps. The actual arrangement of noose and trigger mechanism set in *yal tu'u* also depends upon the expected prey, and whether the traps are intended to capture live prey or to kill it. These different arming arrangements may be variously named, as set out below.

While any type of trapline may be referred to as *yal tu'u*, the term is also applied to two kinds of trap that are not necessarily set at intervals in barriers. The first of these variants is not terminologically distinguished. It is described as a modern innovation for catching live sulphur-crested cockatoos for the pet market. It consists of a long horizontal pole set up in a suitable location in trees, and baited at intervals with maize cobs. Small slip nooses are spaced along the pole. When a cockatoo lands on the pole and walks toward the bait it is likely to get its toes entangled in one of the nooses, which pulls tight as the bird struggles.

The second variant is also a modern innovation, designed to catch large prey, especially pigs, by the leg. This kind of trap may be referred to simply as *yal tu'u*, but also as *lafar yabaidi*. The spring mechanism is essentially the same as other spring traps; the innovative nature of this trap is said to consist of the noose, which is laid horizontally on the ground, rather than in the traditional vertical plane. The trigger mechanism is set in a shallow, camouflaged pit in the middle of the noose and is sprung when an animal steps on it. The nooses of the examples of this kind of trap I saw were all made of blue nylon cord, but other elements of the traps were made of bush materials. One set of traps consisted of a series set near a fenced garden, another was of several nooses set within a sturdy *yal tu'u* barrier at the upslope end of an unfenced garden. One of these traps had been sprung by a pig that had escaped by gnawing through the nylon noose, another had been disarmed when the spring pole split from excessive tension.

The *lafar* type of spring trap may be set alone, or as part of a series in a *yal tu'u* trapline. *Lafar* are larger traps with the noose arranged in the vertical plane to catch large prey, such as deer, pigs, cassowaries, and wallabies by the neck.

An arboreal version of the *lafar* trap is used to catch cuscus. This includes a stone weight added to the noose to prevent the animal from escaping. (This is possibly similar to a Nuaulu trap from Seram described by Ellen [1978].)

*Nerkul* are small spring traps set for small wallabies, bandicoots, rats, and ground birds such as megapodes and ground doves. These are superficially like scaled-down versions of *lafar* with minor differences in the less-robust trigger mechanism.

Deadfalls, *rungum*, are of two very different types and sizes. Those built to catch pigs are known simply as *rungum*. These are massive constructions of a pile of heavy logs perched above a narrow fenced lane leading from a gap in a garden perimeter fence. As a pig pushes through the lane to get to the garden, it activates a tripwire that dislodges the system of struts holding the log weights in place, which then crush the pig in the lane.

The second type of deadfall, called *rungum baum*, is much smaller and is used to catch smaller mammals and birds alive. It consists of an inverted cage of small poles, one end of which rests against a firm base on the ground, such as a sapling, the other end suspended between up-

right posts by an arrangement of small pegs and string loops attached to a trigger mechanism beneath the cage. Bait is placed on the ground under the cage, and the trap is sprung when an animal dislodges the trigger beneath the cage. The raised end then falls flat on the ground, trapping the prey live within. To prevent the prey from escaping, the cage can be weighted with stones and logs.

### **Trapping in contemporary Aru economy**

As the preceding section indicated, the type of trap constructed depends to a considerable extent on the expected or desired prey, and whether live or dead prey is preferred. Trapping is an integral element in both the self-sufficient, subsistence sector of the local economy, and in the petty production of commodities for cash sale. Within these contexts it is initiated for three main reasons: to secure meat for the pot, to protect gardens from the depredations of wild animals, and to obtain live birds and other animals or their products for sale to merchants, officials, and others visiting Aru. These concerns have an important bearing on the type of traps constructed and their locations.

In general, individual traps and traplines are located where they can be checked at least every two or three days. This is necessary to ensure that they are maintained in working order, and to retrieve any catch before it spoils or is ruined by scavengers such as feral pigs. Traps designed to catch small or live prey need to be checked even more frequently.

In October 1991 there was an old *lafar* trapline in secondary bush within 200 meters of Jirlay village. It had been set with traps suitable for small wallabies and ground birds. Feral pigs, deer, and cassowaries are less often encountered so close to permanent habitations. More productive trapsites for such large prey are therefore at a distance from permanent settlement, such as at forest hunting and sago-processing campsites, and near gardens in the forest. From forest camps, family groups pursue diverse productive strategies combining sago processing or garden work with trapping and active hunting. The latter involves searching the forest for terrestrial and arboreal game either by lone hunters or by small groups with the aid of dogs and armed with blackpalm bows and fletched cane arrows and parangs.

Food gardens are a powerful attraction for both feral pigs and deer. Pigs in particular can cause heavy damage to gardens by rooting up the soil, besides eating standing crops.

Fencing of gardens is quite variable. Unlike many other Christian villages in Aru, there are no domestic pigs kept in Jirlay. There is therefore no requirement to erect particularly sturdy fences to keep pigs out of gardens and contain potential disputes between garden owners and pig owners. Indeed, some older gardens close to Jirlay were unfenced, while others had low or flimsy fences that were unlikely to deter invasion by a determined pig or deer. However, because feral pigs and deer are not common close to villages, these gardens are relatively safe from invasion. Proximity to habitations means they can be monitored almost daily for signs of damage by wild animals.

Siting traps along the perimeter of gardens, and incorporating large *rungum* deadfalls within the fence is a strategy designed both to protect the garden from depredations—of pigs in particular—and to capitalize on the attraction the garden constitutes. Nonetheless, the prime considerations in choosing garden sites are soil fertility (as indicated by the natural vegetation cover), and accessibility from the village, rather than the potential to attract game. Traps associated with gardens thus serve a dual productive function, as devices directly yielding highly esteemed meat, and indirectly promoting the yield of garden crops (cf. Dove 1985, Ellen 1978, Morren 1986).

The town of Dobo constitutes an important market for a variety of products surplus to local village household requirements. These include garden crops and cassava cookies, sago, and game meat, besides a variety of traditional products such as woven fiber mats and sections of sagoleaf atap for building purposes. For villages such as Jirlay, located several hours' travel time by motorboat from Dobo, access to the town market is severely limited. There are no motorboats or outboard engines in Jirlay, although villagers claim a share in a motorboat run by a nearby village that they helped to build, thus entitling them to call upon its services if it is not otherwise required by members of its home village. For the most part, however, Jirlay villagers depend upon small dugout canoes and paddles for transport. Under these circumstances, Jirlay is not in a position to market fresh meat regularly in Dobo. The majority of animals killed in traps or taken in the hunt by bow and arrow or dogs are eaten by the trapper or hunter and his household. Larger animals, such as pigs and deer, may be widely shared with other households, and joints are also sometimes sold within the village.

Deer meat, however, is commonly preserved by smoke and salt, and is sometimes sold to merchants in Dobo. The antlers and the hooves of deer are also sold to Chinese merchants in town, who export them for the apothecary trade. Many of these animals are caught in traps. The best prices are obtained for small antlers, and it therefore takes time to accumulate a salable quantity of antler.

**Table 1: Forest products traded**

- A. BIRDS
  - Edible nests of swiftlets, *Collocalia* sp.
  - Skins of greater bird of paradise, *Paradisaea apoda*
  - Live parrots and cockatoos, principally:
    - Sulphur-crested cockatoo, *Cacatua galerita*
    - Palm cockatoo, *Probosciger aterrimus*
    - Eclectus parrot, *Lorius roratus*
    - Red-headed parrot, *Geoffroyus geoffroyi*
  - Live pigeons and ground-doves
- B. REPTILES
  - Live reptiles for pet trade:
    - Large unidentified lizard
    - Green tree-snake, ?*Condropython viridis*
- C. MAMMALS
  - Live wallabies
  - Deer antlers, hooves, smoked and salted venison
  - Pig meat
  - Wallaby meat
- D. INVERTEBRATES
  - Butterflies for curio trade
- E. PLANT PRODUCTS
  - Rattan (6 types)
  - Damar tree gum
  - Various unidentified hardwood timbers
  - Processed sago
  - Nuts and fruit of wild forest trees
  - Pandanus mats
  - Sago-leaf thatch

Aru Islanders harvest a wide range of other forest products for sale to merchants and others in Dobo (see Table 1). The most important of

these, in terms of their market value, that are caught in traps are live parrots and cockatoos. These are sold to bird dealers for the well-developed (if poorly regulated) cage-bird trade in Indonesia, as well as to government officials and others seeking souvenirs of visits to Aru. Nonetheless, birds that command the highest prices are ones that have learnt to talk, and these need to be taken by hand from the nest well before fledging. Birds of paradise are occasionally trapped for sale live, although most are sold as skins from birds shot with bow and arrow.

There is a small trade in a variety of other forest animals that are captured live. Animal dealers are said to visit villages occasionally in search of live animals destined for zoos in Indonesia and overseas. Several species of reptiles are sought, most of which are caught by hand. Besides various parrots, the other main animals caught live in traps for the zoo trade are wallabies.

The Aru Islands are a major producer of marine products, notably pearls (both natural and cultured), trepang, sharkfin, shrimp, and squid. Production is mostly controlled by foreign companies, and little of the generated wealth finds its way into the local economy. Indigenous Aru Islanders are seasonally employed as divers, crew, and processors at low wages. Because the productive capacity of households is limited by the absence of wage laborers, subsistence often depends upon the purchase of sago from other villagers. Earnings from wage labor therefore become dispersed within and between communities, but there is little capacity to accumulate cash.

Besides seasonal labor, Aru villagers depend for their meager cash incomes on a diversity of small-scale, intermittent activities based upon the exploitation of natural resources. Pearlshell is another important marine product, besides fresh fish, trepang, and pearls. Forest products are of considerable local importance. This is particularly so in villages situated along the narrow channels between islands or further inland because of the distance from the open sea where marine resources are richest.

In Jirly village, income is principally derived from seasonal work as crew on small fishing boats operated by Bugis and Chinese businessmen, and from the sale of forest products, rather than locally produced marine products. The principal forest products, in terms of their monetary value and frequency of sale, are edible birdnests and skins of the greater bird of paradise.

### **Conclusion**

Trapping is clearly of minor significance in the exploitation of forest resources for sale, since greater value is derived from products obtained by other means. However, given the diversity of sources of low income, the lack of dependence on the market for subsistence, and the importance of game in the local diet, trapping assumes a significance in the local economy belied by the low-key appearance of the practice.

Indeed, I suggest that it is precisely because trapping serves a variety of purposes that a relatively large number of types of trap are in current usage. These purposes are the capture of several different kinds of large and small animals for local consumption, the protection of gardens from depredations by wild animals, and production of several species of birds and mammals for sale live or as fresh and preserved meat.

The relative impoverishment of villagers in the context of an expanding, largely foreign-owned, commercial exploitation of marine resources only serves to heighten dependence upon self-sufficient subsistence production and the importance of petty production of forest resources for market sale.

In common with many other subsistence-oriented communities of Eastern Indonesia and elsewhere, self-sufficiency is enhanced by a diversification of strategies of production. This does not mean that the full range of productive activities in local economies will always be evident. However, as with wage labor, trapping is a periodic activity of economic significance. The fact that it is pursued in an apparently low-key and mundane fashion should not lead observers to conclude that it is only a marginal activity in the contemporary economy.

Jirlyay villagers stressed their foraging heritage, of which the supposed monopoly on the knowledge of trapping by the Fanaan semitotemic moiety was an integral element. In light of this representation of their history, I suggest that, beyond its practical utility, trapping may also operate at a symbolic level, as indicative of the persistence of an essentially foraging economy. The adoption of swidden cultivation and permanent village sites might appear antithetical to a foraging economy, which is typically thought of as nomadic, though persistence of foraging economies associated with permanent settlement elsewhere in the world should caution against equating foraging with nomadism. By making gardens and settlements a major locus of traps, the enduring structures of human endeavor that serve to bind people to a geographically

circumscribed area actually become incorporated into the foraging strategy. Rather than undermining the foraging basis of subsistence, permanent domestic space as represented by the village and cycle of garden sites become elements in the persistence of the dominance of a foraging mode of production, regardless of the diminished material significance of foraging as a means of provisioning household and community subsistence.

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