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## “Quarantine matters!”: quotidian relationships around quarantine in Australia’s northern borderlands

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**Abstract.** This paper investigates practices of border formation through an analysis of Australia’s quarantine processes. We use the work of the Australian Quarantine and Inspection Service (AQIS), through the Northern Australia Quarantine Strategy (NAQS), to interrogate the ways in which borders are made and remade in daily life. By exploring quotidian practices of quarantine we argue that borders are the sites of complex and fluid relationships that are constantly being renegotiated as multiple active agents cohabit, contest, belong, and exclude. We find that quarantine borders are constantly being (re)made by forces outside NAQS’s control, including through the practices of Yolngu Indigenous land-management staff and rangers, individual local residents, and diverse non-humans. Borders are revealed as active spaces produced in multiple locations at multiple scales. They are underpinned by diverse ontologies and are always more-than-human. This challenges the overly simplified view evoked within AQIS’s public awareness material and the prevailing national discourse of defence, invasion, and fear. Through attention to quotidian practices of border making, different ways of understanding borderland geographies emerge.

### Introduction

“AUSTRALIA IS UNDER ATTACK. Not that many people know it. From the brain-boiling fevers of Japanese encephalitis and the flesh-eating maggots of the screw-worm fly, to plant pathogens that can lay waste to whole crops with the relentlessness of a biblical plague, Australia is threatened by a range of plant and animal diseases, any of which could damage our economy or ruin our environment. It’s AQIS’s job to make sure that doesn’t happen.”

Elliott (2003, page 101)

The public face of the Australian Quarantine and Inspection Service (AQIS) charges quarantine with the protection of Australia’s unique environments and ways of life. Developing a language of belonging and exclusion, AQIS’s Quarantine Matters! public awareness campaign emphasises the nation’s vulnerability to overseas pests and diseases, and constructs a border between a pure Australia and the rest—a world filled with ‘others’ that could invade, contaminate, and harm Australia’s unique environment and productive economy. This border is maintained by quarantine officials who form Australia’s “first line of defence” (AQIS, 2005) and is supported by vigilant, law-abiding travellers, traders, and local residents, including Aboriginal communities and rangers.

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Australia's borders are invoked both as natural and as rigid, while Australia itself is constructed as separate, remote, and pure. Images such as those from the Australian reality television program *Border Security* (Channel 7) reinforce these conceptions as viewers watch AQIS staff identify, challenge, and sometimes detain visitors who fail to declare restricted and banned items. These images perpetuate a pervasive politics of exclusion and fear with a concomitant construction of belonging based on sameness and rigidity (Comaroff and Comaroff, 2000; Nevins, 2002; Pickering, 2004). With such constructions dominating mainstream discourse around the issue, the realities of life lived on and through the border recede.

In this paper we use the work of AQIS, through the Northern Australia Quarantine Strategy (NAQS), to interrogate the ways in which borders are made and remade in daily life. We delve into quotidian experiences around quarantine to argue that border spaces and relationships are constantly being (re)negotiated by multiple active agents who cohabit, contest, belong, and exclude in diverse ways. We show that quarantine borders do not exist as easily identifiable and strongly policed lines. Rather, they are active spaces sited in multiple locations, and are contingent on the continued commitment and activity of NAQS officials, Yolngu Indigenous land-management staff and rangers, individual local residents, and diverse nonhumans. We find that borders are constantly being made by forces outside NAQS's control. This challenges the overly simplified view evoked within AQIS's public awareness material and the prevailing national discourse of defence, invasion, and fear as it is constructed at national and local scales.

We begin by highlighting some of the ways in which quarantine has been problematised within the literature. We critically examine the variety of extant processes that influence decisions about what belongs and what should be excluded within discourses on quarantine. We then extend these discussions by shifting attention to the quarantine 'frontline', to analyse everyday relationships around quarantine in Australia's north. In doing so we contribute to calls for understanding borders from the perspectives of lived experience (Brunet-Jailly, 2005; Ford and Lyons, 2006; Megoran, 2006). We decentre the idea of borders, learning from the way in which borders are imagined and experienced by those whose lives are lived in the border.

### **Quarantine matters!**

Borders are important sites for both delineating and defining places and identities. It is increasingly recognised that, rather than existing as static and unproblematic lines on maps, borders are in flux and have social, political, and economic dimensions (Ackleson, 2005; Monk, 2003; Newman and Paasi, 1998; Paasi, 2005; Pickering, 2004). In particular, the ways in which borders are imagined and produced have important repercussions for the identities of places, people, and groups. A rigid border based on fear and exclusion can, for example, be used to divide self from other and can exclude and marginalize certain groups (Sibley, 1995). Borders can also be used in an attempt to encircle, and so create a 'pure' space where encounters with others are in the form of a monologue—a one-way and exclusionary encounter (Rose, 1999). However, postcolonial and feminist theorists stress that borders imply both a line of division and a line of encounter, relation, or dialogue (Howitt, 2001; Kaiser and Nikiforova, 2006; Staudt, 2002). Borders as social, political, and discursive constructs both separate *and* bring together (Paasi, 2005).

In Australia national discourses which construct Australia as pure, separate, and remote illustrate the exclusionary use of borders (Green, 2004; Lloyd et al, 2007). Over the last decade, for example, policy decisions surrounding migration and asylum seekers have exploited a fear of implosion—"the fear of the outside other coming in

and destroying the heart of the self” (Green, 2004, page 33). Australia, as a body politic, and a country, has actively redefined its borders, and its sense of ‘self’ and ‘others’ (Green, 2004), to protect against this implosion through the strengthening of borders against particular groups of people. In doing so, it creates diverse violences of exclusion as it redraws and redefines both the border and the nation as defensive, fearful, and homogenous (Giannacopoulos, 2005; Perera, 2002).

The practices of quarantine and quarantining are a key way in which borders are constructed as exclusionary markers. These practices are crucial in defining what belongs and what does not belong, and in restricting and surveying movement in order to protect a space against a range of impure and unwanted invaders. Viewed this way, quarantine borders are not natural markers of difference but reflect particular ideals and values. As Kinsella (2001, page 18) asserts:

“Quarantine isn’t just about keeping diseases out, protecting a specific geography from physical contamination, but also about the preservation of ‘home’ values. It is about a mental and spiritual ‘purity’. For Australia, it’s another form of the ‘White Australia Policy’, and extends from microbes to people and ideas.”

Quarantine decisions which support and reflect existing social inequalities surrounding race and class give credence to this argument. For example, Edelson (2003) has looked at medical quarantine associated with typhus in San Francisco in 1900. He shows that the experiences of Chinese and Japanese residents—who were seen as alien or other—were radically different from those of the white population. Comaroff and Comaroff (2000) similarly argue that discourses of belonging and boundedness around ‘alien plant invaders’ embody new forms of discrimination in a postcolonial South Africa. For Kinsella these examples support a position that sees quarantine become “an issue of power and protecting privilege” (2001, page 18).

Other authors, such as Fagan (2005) and Kellow et al (2005), add further complexity to the idea of quarantine by looking to the international arena for insight into ways in which quarantine, and so the border, is negotiated. Political and economic concerns, for example, rather than (or in addition to) science are seen as central in the decision to allow some foods to be imported into Australia. A statement by a spokesman for the Banana Growers’ Council in Tully, Queensland, speaks to these diverse influences while highlighting a belief in the certainty of scientific objectivity:

“we want this process [determining the validity of Australia’s quarantine restrictions against banana imports from the Philippines] to be based on science only. This is not about trade and certainly not about terrorism; it’s about disease security that protects our island nation from new pests and diseases” (cited in Fagan, 2005, page 217).

A naïve engagement with quarantine as an apolitical mechanism for isolating contaminants and affording protection against the spread of unwanted agents is challenged by debates over the relative influence of scientific objectivity, international geopolitics, and economic imperatives in defining what exactly is acceptable or unacceptable for entry to nation-states. Indeed, the scientific basis of quarantine processes is heavily contested on many scales. In a submission to the inquiry investigating the above banana-import dispute, the Tasmanian government, for example, expressed a concern that “the [Australian] Director of Quarantine is susceptible to pressure from foreign governments to accept imports as quid pro quo for those countries accepting Australian exports” (Bacon, no date, page 3). This example denaturalises quarantine borders and illustrates one way in which broader interests and values can be supported through quarantine decisions. In this case, quarantine acts as a process of negotiated border-making that contours trade relations between countries.

Kellow et al further critique quarantine borders within the context of international disputes over import/export rights to suggest that, within a context of neo-liberal globalisation, quarantine policies “have proved to be attractive means of re-erecting, at least partially, some of the old barriers of protection” (2005, pages 17–18). These concerns have surfaced in recent disputes surrounding the importation of Canadian salmon to Australia. In this dispute Kellow et al (2005, page 22) argue that the Australian government’s conservative approach, which aimed at a complete ban against Canadian salmon imports rather than simply restricting imports to salmon farming areas, fuelled perceptions that quarantine regulations were functioning as “a disguised barrier to trade”. The Philippines government similarly recently challenged the aforementioned restriction of banana imports into Australia, arguing that they contravene World Trade Organization trade rules by acting as a form of industry protection. These assertions led to the World Trade Organization establishing a panel to evaluate Australia’s policy stance (Fagan, 2005). Such criticisms and disputes have propelled the question of so-called ‘sanitary and phytosanitary standards’ to the centre of international politicking over trade.

These examples focus on a nation-state and international scale, and show that quarantine borders are far from the static, unproblematic, and easily mappable lines evoked within AQIS public awareness campaigns. Rather than standing as a rigid line of defence to protect a pure Australia from clearly identifiable impure invaders, quarantine boundaries are subject to conflict and contestation by a number of interests ranging from national governments to domestic lobby groups. Not only is there no pure Australia to be encircled, but decisions over what belongs and what does not are revealed as entirely imbricated with the workings of international trade deals and power-laden, racialised constructions of belonging and exclusion.

While these accounts are both important and compelling, they tend to privilege the border as a line of division rather than as potential encounter. As Paasi (2005) and others remind us, however, borders are sites of relationships that can bring together as well as divide, often in unexpected ways. Furthermore, the practices of border making do not only occur in the offices of quarantine officials, or of top trade negotiators, but are realised on the border itself. This is where we now turn, shifting our attention to the quarantine ‘frontline’ and analysing the quotidian relationships around quarantine in Australia’s northern borderlands.

We base our analysis primarily on interviews and discourse analysis with a focus on NAQS. We investigate NAQS policy documents and public relations material as well as media reporting of NAQS activities. Our analysis is focused on the material and conceptual practices of border making and we question how borders are produced through an intertwining of human and nonhuman actors within and throughout the borderlands. The analysis is undertaken with particular sensitivity to the place of diversely constituted practices and diverse interactions in these encounters. This analysis is complemented with interviews with AQIS and NAQS staff, and interviews with Indigenous land-management organisational staff and rangers who work with NAQS, to examine the day-to-day practices of this programme. There are three established Yolngu ranger groups in North East Arnhem Land (a vast area of Aboriginal land, covering 91 000 km<sup>2</sup> in northern Australia): Dhimurru, Yirralka Laynhapuy, and Gumurr Marthakal. Semistructured interviews were conducted in November 2005 by one of the authors (see Muller, 2008) who had been living in Arnhem Land, collaboratively working with and developing research programmes with these three groups over a two-year period. The senior ranger from each of these groups was interviewed as the key liaison for NAQS staff. During one interview on Elcho Island, a senior Yolngu community member was present and it was considered appropriate by the Gumurr

Marthakal ranger to include this person's comments. Interviews with the three key NAQS staff were also conducted in November 2005.

Our investigation challenges the 'naturalness' of border formation by drawing attention to the numerous actors involved in deciding what is 'natural' or 'at home' in Australia, what should be kept out, and how the border is defined and transformed. We find that the construction of a controllable and strongly policed 'frontline-as-border' that lies at the heart of AQIS and NAQS public relations is not reflected in NAQS practices on the ground. Instead, we encounter multiple, coexisting border zones which constantly shift in response to a range of actors and engagements. We begin the next section with attention to the work of NAQS as it engages with a border that is both permeable and located at multiple sites and scales. We then focus on the experiences and understandings of Yolngu rangers and community members in North East Arnhem Land.

### **Locating and controlling the frontline**

NAQS was established in 1989 following the 1987 Lindsay Review of Australia's quarantine arrangements. NAQS's primary functions are to: identify and evaluate quarantine risks facing northern Australia; develop and implement measures for early detection; and, manage border movements through the Torres Strait (NAQS, 2007). These functions are undertaken by staff across northern Australia (north Queensland, the Northern Territory, and northern Western Australia), who integrate scientific surveys and monitoring with onshore and offshore capacity building and public awareness (NAQS, 2007). When outlining the need for quarantine, NAQS literature continues to develop the language of belonging and exclusion that is emphasised within AQIS public education campaigns. The material emphasises the economic and environmental vulnerability of northern Australia—its wildlife and agricultural industries—and positions the area as the frontline and gateway to the rest of Australia (AQIS, 2003a). Meryl Stanton, Executive Director of the Australian Quarantine and Inspection Service observed:

"Australians everywhere are indebted to the work of Torres Strait officers and their communities, who are working at the frontline to stop the spread of exotic pests and diseases south into our main food production areas" (AQIS, 2003b, page 3).

In practice, however, NAQS works with quarantine borders that are complex and porous. They do not simply restrict movement across a single line but, instead, work in multiple locations within, beyond, and throughout the northern borderlands. In negotiating and coproducing the border, NAQS collaborates with overseas agencies, local communities and residents, and diverse nonhumans. This complexity reflects the nature of quarantine risks, the size of Australia's national borders, and the diverse cultural traditions of residents living within the zone.

Locating and controlling the frontline becomes a complex task as production of the border is at once 'pushed out' (to offshore locations) and 'pulled in' (to smaller scale borders within Australia's north). Quarantine borders, for example, are enacted on the mainland of Australia and its offshore islands through the daily activity of local residents. The everyday space of the home becomes an important site for the production and maintenance of quarantine borders as local residents protect themselves against quarantine risks, such as those posed by mosquitoes carrying Japanese Encephalitis. In this case, residents construct physical borders around self and home through the use of insect screens, mosquito coils, and insect repellents, through the use of protective clothing, and by changing their activities to minimise the availability of mosquito-breeding sites.

Our attention to the multiple and multiscale sites through which the border is made resonates with recent work within border literature that emphasises the need to understand the practices of border making at different scales (Buursink, 2001; Lunden

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and Zalamans, 2001; Newman, 2006). In the case of quarantine borders the sites and scales of the border go beyond the oft-cited national, regional, and local/neighbourhood scales (see also Kaiser and Nikiforova, 2006). The border, for example, is produced within the homes and on the bodies of residents and, indeed, in the bodies of mosquitos themselves. Similarly, processes of border production go beyond the nation itself. Here the 'frontline' becomes an exercise in extraterritoriality as border-maintaining activities in, for example, Indonesia play a key role in reducing the chance of incursions into Australia. By locating quarantine activities offshore, NAQS aims to contain the spread of 'risky' bodies, while also developing knowledge of potential pests, weeds, and diseases living within the broader region. These activities have seen NAQS assisting in Indonesia to identify outbreaks of Classical Swine Fever (AQIS, 2004b, page 1) and, with researchers and government agencies in Timor Leste, developing new quarantine legislation [AQIS (2003a, page 11); see also AQIS (2004c, page 6) for a summary of overseas programmes.]

The preferred location of these border activities is at least partially determined by the bodies and practices of entities understood to represent a quarantine threat. These relations create the quarantine border as an always 'more than human' achievement (see Whatmore, 2004; also Philo and Wilbert, 2000), with border activities reflecting and influencing the bodies and practices of these organisms—in particular, their means of travel and likely path into Australia. For NAQS, Western science plays a central role in facilitating and regulating this engagement—developing knowledge and providing a basis of understanding upon which quarantine decisions are based. In this context, science provides a way of identifying and 'knowing' risky nonhumans, of holding them as static points that can be engaged, regulated, and restricted through quarantine activity. Discourses of risk analysis and surveillance surround these activities and are central to NAQS approach, enabling negotiation with nonhuman agency with the aim of neutralising and limiting border incursions. NAQS's claim to produce and maintain Australia's northern quarantine borders is reliant on the success of these programs in 'speaking for' risky entities by preventing their access to the mainland.

Animal agency is a reality in the work of NAQS and, indeed, in the construction and maintenance of the border itself. The environment as a space of flows which transgresses human-imposed borders has been the focus of study in environmental management (Lovecraft, 2007) and animal geographies (Thomson, 2007). However, the question of animals and their role in coproducing borders is not an area that has been well explored within the literature. Power's (2007) work is an exception as she investigates how border making within the home requires people to enrol a number of nonhuman agents [for work that engages with the roles of animals and human–environment interactions in practices of border production see also Kaika (2004), Trudeau (2006), and Wondrak (2002)]. In the case of quarantine, animals, winds and micro-organisms assert their agency in border-producing activities in important ways. It is clear that the border is more than a purely human construct, reflecting, as it does, multiple interactions between multiple worlds.

A discourse of efficiency surrounds NAQS's border activities as the organisation works to strengthen its role through the development of more efficient and reliable methods of detecting and mobilising against incursions. Further disrupting representations of quarantine borders as a simple frontline, these discussions suggest that borders have a temporal component that is defined by a number of factors, including the extent of scientific development, organisational response time, and the accessibility of locations requiring a quarantine response. Developments in mosquito trapping illustrate attempts to reduce time and cost by mapping the spread of Japanese Encephalitis. Incursions by the virus are currently monitored through sentinel pig herds

located in areas believed to be visited by, or in the path of, the virus's mobile mosquito vector. Mosquitoes infect the pigs who contract and amplify the virus which is subsequently identified through blood testing. Recent innovations in mosquito trapping are flagged as being faster and more practical than the use of sentinel pigs.

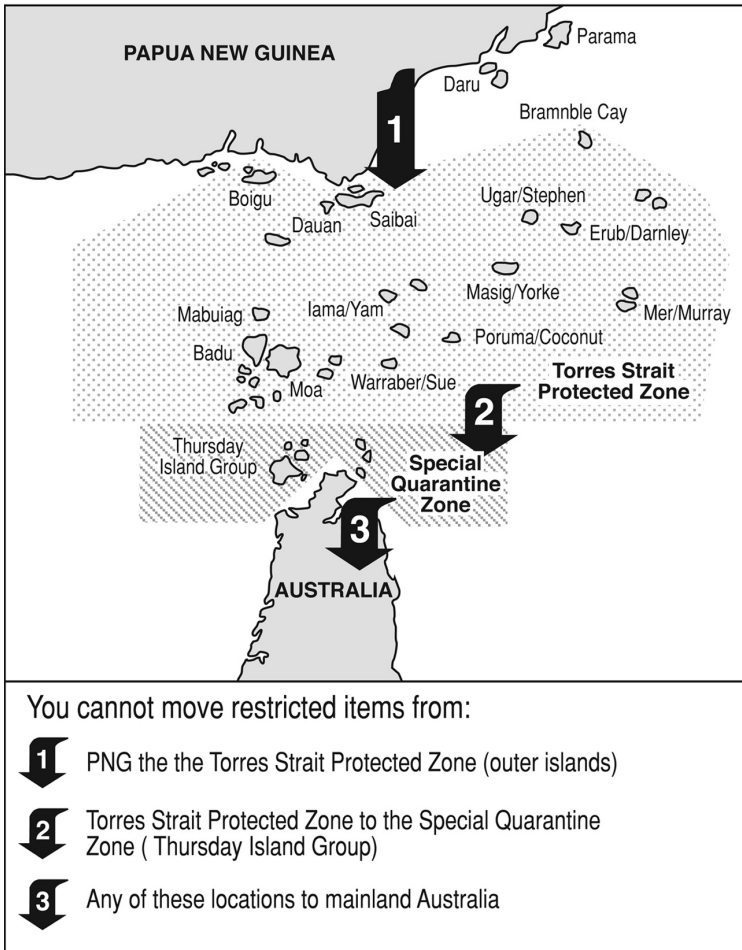
NAQS programmes emphasise surveillance rather than the complete restriction of cross-border movement. A further layer of complexity is added to this picture by NAQS conceptualisations of quarantine borders as a permeable zone. This approach is necessitated by the large volume of human and nonhuman movement that occurs throughout the borderlands. Migratory birds, as potential carriers of quarantine risk, illustrate this. Their small size and numerical density highlight the impossibility of fully controlling or preventing cross-border movement, and necessitate an emphasis on surveillance through the sampling of wild bird populations (see, for example AQIS, 2004a, pages 8–9). NAQS aims to monitor and respond to the movement of potential risk carriers, rather than simply preventing their transit.

NAQS is also called upon to recognise the economic and cultural significance of human travel throughout the zone: in particular, the importance of trade and travel between Papua New Guinea (PNG), the Torres Strait Island and Thursday Island groups, and mainland Australia. Rather than preventing movement across a single-border, NAQS views the northern quarantine border between Queensland and PNG as a series of permeable zones and attempts to facilitate trade and travel while limiting the southern movement of restricted items (AQIS, 2004c, page 5) (see figure 1).<sup>(1)</sup> The maintenance of these zones relies on the continued commitment of individuals travelling throughout the zone, including people participating in trade, those moving cargo and machinery, and tourists. NAQS invests in educational programmes and brochures which emphasise the importance of quarantine and the rights and responsibilities of people inhabiting and transiting the area. These borders function through decentralised processes of self-surveillance as travellers and traders, firstly, ensure that they do not transport restricted items, and, secondly, organise for traded items, cargo, and vessels to undergo quarantine inspections as required (AQIS, 2003c). NAQS further decentralises quarantine efforts by encouraging travellers, traders, and local residents to report incursions and illegal activity in the zone.

The size of Australia's northern coastline supports such decentred surveillance-based approaches by limiting the ability of NAQS officials to police the entire border effectively. Risk-evaluation strategies work alongside surveillance, allowing NAQS to prioritise its resources and personnel to 'high risk' locations. A review of these procedures saw NAQS rank locations within its survey zones according to the perceived risk afforded by foreign pests, weeds, and disease. Whereas some areas undergo frequent surveying, this approach means that locations deemed 'low risk' may be surveyed less frequently (AQIS, 2004a, page 19). The economic significance of the Ord River Irrigation area, coupled with its proximity to Asian neighbours, means that the area is rated as 'very high' risk, requiring twice-yearly surveys (AQIS, 2004c, page 4). By contrast, certain areas of Cape York<sup>(2)</sup> are considered low-risk locations due to their distance from PNG and Indonesia, and the low level of visitation to the area. Some parts of the area are thus only surveyed every five years (AQIS, 2004a, page 19). Rather than existing as one strongly policed border, this strategy produces Australia's northern quarantine border as a broad zone, which is diversely defined and maintained according to its perceived degree of risk.

<sup>(1)</sup> It is interesting to note that this surveillance of movement is unidirectional, and the northern movements of items is not regulated.

<sup>(2)</sup> The Northern Peninsula Area is currently rated 'high risk' due to its potential as a pathway from the Torres Strait onto Mainland Australia.



**Figure 1.** Quarantine zones (AQIS, 2003c).

While understanding the border as a (both temporally and spatially) diverse zone of interaction means recognising the numerous encounters and dispersed practices of border making, this is not to imply that the border becomes a space of unproblematically free flows or of easy interaction. This is a point raised by Newman (2006) as he discusses ‘spaces of transition’ not just as bridges or places of connection but as sites potentially riddled with new borders, barriers, and exclusions. Although in some ways the nature of the border is changed as the practices of its production are dispersed, in many ways exclusionary processes persist—transformed to different scales and different sites. Yet, this is not the whole story as a multiply situated and constructed border can never be the rigid and pure space conjured through discourses of invasion and fear. Neither, despite the efforts of NAQS, can such a border ever be fully controllable.

Plants and nonhuman animals represent a quarantine challenge which, despite extensive planning, frequently sees NAQS following and responding to incursions. Such permeability and unruliness points to an active and fluid border made and remade both by humans and by nonhuman agents. The dynamic nature of threats underpinned the ‘unexpected’ detection of Asian papaya fruit fly on Badu Island in early 2004. In this example, factors including the “strength, direction and duration of



monsoonal winds” transported a number of the insects into the area of Badu Island (AQIS, 2004c, page 1). NAQS’s subsequent ‘response activities’ included nailing male-annihilation blocks to trees, installing traps in at-risk locations, and weekly baitspraying aimed at suppressing the number of female fruit flies (AQIS, 2004a, page 17). As this example illustrates, the often unpredictable nature of quarantine threats requires NAQS to assume a response-oriented approach to quarantine—a position that challenges representations of a clear quarantine border which preempts and prevents the movement of restricted entities.

The places and meanings of borders are also importantly (re)created by Indigenous rangers collaborating with NAQS. NAQS’s collaborative work with Indigenous groups involves protecting borders which are at once diversely made, diversely conceived, and diversely located. The work further demands that NAQS negotiates different aims for its work in northern Australia: aims that move beyond the defence of a pure and fearful economy, a pure and fearful environment, and a pure and fearful populace. By examining the role of Indigenous communities in Arnhem Land in NAQS’s work, in this section we highlight the ways in which the simple rhetoric of ‘border protection’ is challenged in many ways (including at an ontological level) on the ground—where surveillance actually takes place.

### Yolngu in the front line of defence

The NAQS program works with sixteen different Indigenous ranger groups in the Northern Territory, including groups from Arnhem Land. Arnhem Land encompasses a significant area of coastline in the center of Australia’s northern border region and is therefore integral to ensuring ‘border protection’ (see figure 2). NAQS’s work in North-east Arnhem Land is done in collaboration with Indigenous Yolngu traditional owners as rangers and as community members. Yolngu land is significant in NAQS operations because:

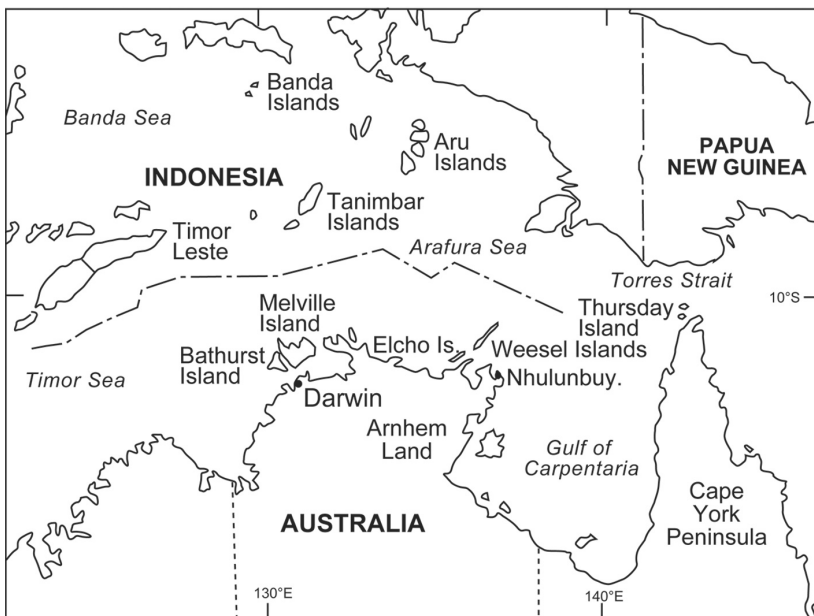


Figure 2. Location map.

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“you’re looking at a vast, very lightly inhabited coastline and you’re looking at proximity to other countries where diseases and pests exist ... and therefore the program addresses that risk by trying to provide early warning” (NAQS employee 1, interview, 16 December 2005).

NAQS collaborations with Yolngu were initially facilitated through the Northern Land Council in negotiation with traditional owners. Traditional owners were hired as guides for NAQS surveys on their land. Whilst in the field the senior veterinarian often found himself short of technical support so he started training people in communities:

“In this way the guides could also help with post mortems. Instead of cutting up the animals in the field we would use helicopters to bring back the pigs to an area where the people in training were assembled” (NAQS employee 2, interview, 2 November 2005).

In the late 1990s more resources were secured for NAQS, and Aboriginal Liaison Officers were employed to provide technical support (NAQS employee 1, interview, 16 November 2005). The employment of these officers facilitated community engagement with programmes related to buffalo, pigs, and other feral animals. This led to the development of a more collaborative approach (NAQS employee 2, interview, 2 November 2005). NAQS staff started working with Yolngu ranger groups and communities regularly. Every two to three years there were large camps in which rangers and broader community members worked together to undertake surveys and postmortems. Often the Dhimurru, Laynhapuy, and Marthakal ranger groups, from Nhulunbuy and Elcho Island, would work together on these surveys. Each ranger group was eligible to receive payment for this work, with NAQS providing equipment such as sample-collection requirements and ammunition (NAQS employee 1, interview, 16 December 2005). NAQS have since extended their collaborative arrangements through additional funding. In May 2006 federal ministers announced that A\$388.9 million would be made available to combat foreign fishing, \$6.9 million of which was allocated to Indigenous ranger groups (DAFF, 2006). NAQS have responsibility for distributing these funds and have employed liaison officers and increased fee-for-service work with ranger groups.<sup>(3)</sup>

NAQS employees view the work with Yolngu rangers and community members as having multiple benefits (NAQS employee 1, interview, 16 December 2005). They state that having the community involved facilitates broader community awareness—it is “far more effective than going out giving out leaflets or showing videos” (NAQS employee 1, interview, 16 December 2005). Having on-ground rangers means that issues can be spotted as they arise, facilitating ‘early detection’, and rangers have a long-term commitment to living on their lands with their people and, hence, will ensure long-term advantages for the programme. Furthermore, building relationships and trust with Yolngu has helped to facilitate access to lands, even during ceremonial occasions, providing greater access and benefit for the programmes (NAQS employee 2, interview, 2 November 2005).

Yolngu involvement in NAQS is, however, not simply a process of following protocol and ‘doing border protection’. Indeed, the very aims of the programme and its key values to Yolngu represent a distinctly different set of priorities and are founded on a very different ontology from Western science. Yolngu are active agents in shaping the program, its processes, and the ‘borders’ within which it works in ways that challenge a simplistic national discourse. Here we look to three main ways in which Yolngu rangers shape the places and meanings of borders: through definitions over where and what

<sup>(3)</sup> The interviews and insights for this paper were gathered in 2005, prior to this additional funding, and are not intended to reflect the new situation.

borders are; through diverse rationales for involvement; and through challenging notions of what belongs.

Definitions over what borders are, how they are realised, and where they are located are all negotiated differently by Yolngu participants in border making. Yolngu borders change in time and space and are bound up with ceremonial practices that open and close different areas to different people and activities. Yolngu ceremonial borders are one example of the ways in which Yolngu borders have a real impact on how NAQS works in Arnhem Land. As one employee states:

“It used to be hard to get into areas in North East Arnhem Land, but over time we have built up trust. In particular it was ceremonies that made access difficult. After a while, people would tell us the boundaries for the ceremony and where we would be able to work” (NAQS employee 2, interview, 2 November 2005).

Yolngu have a range of borders in their lands and waters, including those which delineate what are commonly referred to as ‘no-go zones’ (Laynhapuy ranger, interview, 17 November 2005). Yolngu *rom* (law) clearly demarks areas as belonging to particular clans and people: “We got our own borders, *gapu ga* [water and] land” (Dhimurru ranger, interview, 30 November 2005). One senior ranger stated:

“when we have surveys I go to the TO [traditional owner] and find out where the sacred sites are ... that’s according to Yolngu law” (Marthakal ranger, interview, 10 November 2005).

One survey area may cross over a series of different Yolngu borders, and rangers will have to work with a range of different traditional owners.

Yolngu do not tend to talk about or refer to the borders of ‘Australia’ in their work with NAQS, and do not define a border between land and sea. All Yolngu lands are connected to the sea, and Yolngu make no distinction between sea and land estates when exercising their customary rights and responsibilities (Dhimurru, 2005). Whilst the concept of borders is very important in NAQS work in Yolngu land, borders as defined in the national capital are not the ones which are ‘protected’ in Yolngu work with NAQS: rather, the borders of clan groups, sacred sites, and ceremonies are protected.

It is not only the location and meanings of borders that are challenged through Yolngu involvement in the quarantine programme, but also the very things that are defended against. In referring to the NAQS programme, Yolngu rangers and community members often refer to the programme as being a means to identify *rerri* (sickness) in the animals they are eating, especially pigs. For Yolngu, NAQS is about the safety of their food sources:

“Before, old people used to eat anything, they didn’t know that some of the animals might have diseases ’til AQIS came and the AQIS told us that *dhawu* [story] and like I didn’t know all animals were healthy, that some animals were healthy and some *bayangu* [are not]. So started knowing, ahhh, this is what AQIS is all about” (Marthakal ranger, interview, 10 November 2005).

“we teach the locals in those areas so when they are going fishing, or hunting for *piggy piggy* [pigs] or *miyapunu* [turtle] they know to look for *rerri* [sickness]” (Dhimurru ranger, interview, 30 November 2005).

One of the main *rerri* is Melioidosis, a disease found regularly in pigs in Arnhem Land and which can cause severe disease in humans. According to a NAQS officer, Melioidosis is not a target disease of NAQS. However, it is recognised as being of interest to Yolngu who hunt and eat pigs and hence has been incorporated into the programme (NAQS employee 1, interview, 16 December 2005). Yolngu have asserted their own agency in working with NAQS and have adapted the aims and values of the

programme to their own needs. So whilst the rangers are working collaboratively with NAQS teams and conducting postmortems and securing samples, for Yolngu, the collection of samples is so they can be sent away for testing for reri in potential food sources:

“And I’ll get the report back saying, they’ll tell me that this animal is not good for eating” (Marthakal ranger, interview, 10 November 2005).

Unlike Canberra definitions of protecting Australia against disease and foreign invasion, for Yolngu the key aim of the program is to make sure that their food sources are protected from disease and their people do not get sick.

Yolngu agency in NAQS programmes also challenges and diversifies Western assumptions of what belongs, what is a threat, and what needs to be eradicated. Yolngu knowledge is based on a very different foundation from Western science. Journeys of ancestral beings and their resting places mark the sea and landscapes with great significance to Yolngu. Celebration and respect for these journeys and their important sites link Yolngu to each other and to their world, their country, and everything in it:

“All this gives us a tradition of politics, history, science and guidance on how to live in harmony with our land and sea” (Dhimurru, 2005, page 4).

Yolngu knowledge is all encompassing of its environment:

“Our Yolngu knowledge, we know everything, every tree around, bush *ga* [and] on the beach, on the *gapu* [water], on the lagoons and all that places” (Dhimurru ranger, interview, 30 November 2005).

For Yolngu, what belongs in the landscape is defined by those animals that are sung, or have *manikay* [song]. NAQS work requires ‘cutting up’ of animals, a task that Yolngu are very familiar with in their hunting practices. However, cutting up animals that are not ‘sung’ is very different from cutting up animals with *manikay*—they are separate things:

“That is separate, different technique and style. So we have to use their style of cutting. But us cutting up our turtles and dugongs that is just cultural, cultural ways of doing it ... [you can’t use this knowledge for] pigs ... No songs about pigs. No songs about cane toads, no songs about buffalos” (Laynhapuy ranger, interview, 17 November 2005).

Animals with *manikay* have an important role in Yolngu worldviews. Whilst the dingo or wild dog is often considered in scientific discourses to be a feral or pest animal, dogs have been incorporated into Yolngu *manikay* and culture. In a dog-baiting programme in the Wessel Islands, a senior ranger had reservations about culling the dogs:

“I was a bit worried about the animals ... I sing songs about dingo too, wild dingo but as I’m a ranger, I must look after the animals that I work for, but when I was doing it, but deep inside my heart I was worried about it” (Marthakal ranger, interview, 10 November 2005).

Senior cultural community members cried all day when the dog baiting happened (Yolngu community member, interview, 10 November 2005). Although the dog baiting is not a part of NAQS work, it illustrates the complexities of Yolngu relationships with animals and the tension between notions of what animals ‘belong’ (see also Bowman and Robinson, 2002; Rose, 1995). It is clear that definitions of ‘what belongs’ and, indeed, what it means to belong, within Yolngu and Western science classifications are based on different ontological foundations. Scientific notions of ‘feral species’ and Yolngu conceptions of animals with *manikay* have common elements, but there are clearly divergences. Yolngu perceptions challenge scientific ontological constructions and bring to the work of NAQS, different ways of conceiving human connections with

animal and plant species in Australia, and a diversity of ontological understandings of the world.

NAQS refer to their work with Yolngu as “truly collaborative” (NAQS employee 2, interview, 2 November 2005). Originally, NAQS exercises were organised by NAQS, but now Yolngu are responsible for organising workers and camp sites in a more collaborative approach. NAQS no longer have to “worry about ceremony” (NAQS employee 2, interview, 2 November 2005), as Yolngu organising the trips know where they can and cannot go. Relationships have evolved from Yolngu giving technical support, into the opportunity to work together and develop the programme together. Groups are getting more and more organised and taking on greater responsibilities and autonomy of the programme (NAQS employee 3, interview, 12 December 2005). The Marthakal rangers have recently asked to enter into formal contractual arrangements with NAQS to ensure the longevity of the programme in their community. Yolngu ranger groups have long-term plans of running the programmes themselves:

“At the moment we are working beside them, but in the long run I will probably be doing this by myself” (Marthakal ranger, interview, 10 November 2005);

“They will hand it over to us and we will do the quarantine stuff and just report back the samples and whatever” (Laynhapuy ranger, interview, 17 November 2005). As these relationships develop, the complexities of borders, definitions of ‘exotic’, and important outcomes of the program will be further shaped and defined by Yolngu. NAQS aims for defence of ‘Australian borders’ will include protecting Yolngu agency and will be based on Yolngu ontological values. This will include protection of Yolngu-defined borders, Yolngu species with manikay, and protecting Yolngu food sources from *rerri*.

### **Borders as active spaces**

In his commentary on borders, Paasi (2005, page 669) states that borders are:

“diverging sets of contextual performances in which institutional—that is political, cultural, economic and governmental—practices come together, and in which emotions such as pride, hatred or competition and social and cultural distinctions based on social memory and future structures of expectations also dwell intensively.”

In our investigation of Australia’s northern borderlands we have looked to the divergent sets of contextual performances highlighted by Paasi. We have looked specifically to quarantine practices of Australia’s northern borderlands to investigate the ways in which borders are produced in practice. For Paasi, however, much that is crucial about the border is associated with performances of nationalism, with the “territorial trap” in which the state’s boundary-producing practices become “part of broader socio-spatial consciousness and the everyday lives of individuals” (2005, page 669). His examples of pride, hate, and competition point to an emphasis on particular emotions and particular practices. For us, although we begin with mainstream discourses of quarantine that marshal hyperbole and fear in support of a threatened yet pure Australia (brain-boiling fevers, biblical plagues, and so forth), our intention has been to focus precisely on the *divergent* practices that produce the border in surprising ways. Divergent practices produce identity at different scales and are tied up with different kinds of affect beyond pride, hate, and competition. This is more than a ‘speaking back’ by Yolngu traditional owners, non-Indigenous residents of the border, and by nonhuman actors—it is an active production of the border by diverse agents.

The quotidian practices of NAQS officials, Indigenous rangers, non-Indigenous residents, and nonhumans located in Australia’s northern borderlands challenge the

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simplistic view of borders as created and reinforced at a national level through the policy and public awareness campaigns of the quarantine service. The quarantine border is shaped and defined by multiple actors. NAQS's aims for defending 'Australian borders', for example, intertwine with Yolngu agency and Yolngu ontological values including Yolngu-defined borders and the need to protect Yolngu food sources from *rerri*. Fundamental assumptions about what quarantine is and what boundaries do are negotiated, complicated, and redefined on the ground. Yolngu have asserted their own agency in working within the programme and have adapted the programme to their own needs. Collaborative work with Indigenous groups involves protecting *different* borders and negotiating *different* aims of NAQS's work.

Stepping outside easy understandings of quarantine thus reveals sets of complex relationships through which the border is produced. The border is an active space which is constantly in flux—produced through an array of human and nonhuman practices and relationships. Mosquitoes move their risky bodies across the region interacting with sentinel pig herds and local (human) residents in diverse ways, all coconstructing the border in ways that reveal it as definitively more-than-human. This is a complex story full of agency and negotiation.

Here, the importance of flux and movement is not limited to changes made to the location of the Australian border, though this has and does occur (Green, 2004; Lloyd et al, 2007). Rather, it speaks to the active nature of the border itself, to the border as a dynamic system. As Yolngu ceremonial boundaries shift through time, as the zones of risk move in response to incursions by human and nonhuman agents, and as the sentinel-pig herds, parasites, and viruses move throughout the zone, the border is reproduced as a dynamic and active space. Iterative practices and relationships within and across cultures and within and across species constantly bring the border into being; and decisions about belonging and exclusion are made on many scales in an ongoing process of situated engagement. Multiple agencies negotiate, contest, and coconstruct the border. In Paasi's terms, this is a place where both humans and nonhumans dwell intensively.

Notions of a differently constructed border also lead to different notions of identity and belonging. In place of a pure and rigidly encircled space within which only those who are the same belong, we find a space of negotiation, rich with multiple agencies. The exclusionary discourse of public relations material is replaced by ontologically diverse practices which exist together in complex and occasionally uneasy ways. Yolngu and Western science distinctions, for example, about 'what belongs' are based on different ontologies. Scientific 'feral species' overlap and relate to Yolngu distinctions about animals with *manikay*, but lines are blurred in practice. Belonging is thus underpinned by diverse ontologies that are fundamentally relational and are emphatically more than human.

In the face of such multiplicity, visions of a pure and contained Australia recede. The portrayal of the border as the manifestation of a singular nationalist aspiration and desire is undone. Through attention to the quotidian practices of border making, different ways of understanding borderland geographies, and belonging, emerge.

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