

Warfare, Pacification, and Environment: Population Dynamics in the West Borneo Borderlands (1823-1934)

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Abstract: Warfare, disease, topography, climate, and colonization have long influenced the distribution of human populations in Borneo. Conversely, human populations until recently have exerted a generally modest influence on the Borneo landscape and its resources. Drawing on Dutch archival material and some oral histories, this article examines settlement history in West Kalimantan, Indonesia, with a focus on warfare and colonial pacification and on the environmental effects of these activities, from approximately 1823 until 1934. The specific focus is on the upper Kapuas River basin, a region bordering on the Malaysian state of Sarawak and dominated numerically by one of Borneo's major ethnic groups, the Iban. This history shows the flux of population across the landscape as warfare drove people away while trading and ties to local resources brought them back. It also shows how colonial efforts to suppress warfare initially led to intensified conflict and displacement until eventual pacification.

Guerre, pacification et milieu naturel en région frontalière. Un siècle de dynamique démographique à Bornéo occidentale (1823-1934)

Résumé: Les conflits armés, les épidémies, le terrain, le climat et la colonisation ont longtemps contrôlé la répartition des populations à Bornéo. À l'inverse, jusqu'à récemment, ces populations ont généralement peu modifié le paysage bornéen et ses ressources. Fondé sur les matériaux des archives néerlandaises et certaines données de la tradition orale, cet article examine, à travers une analyse des conflits locaux, de la pacification coloniale et de leur impact sur le milieu naturel, l'histoire du peuplement de Kalimantan occidental (Indonésie) entre 1823 et 1934. Il s'intéresse particulièrement au bassin supérieur du fleuve Kapuas, une région frontalière de l'État malaysien de Sarawak marquée par la prééminence numérique des Iban, un des plus importants groupes ethniques de Bornéo. En rendant compte des flux migratoires, cette histoire montre comment l'état de guerre chassait de cette région ses populations et comment le commerce et le lien aux ressources du terroir les y ramenaient. Elle montre aussi comment l'effort des autorités coloniales pour mettre fin aux conflits conduisit à une intensification de ces conflits et à des exodes avant d'instaurer la paix.

Introduction

A variety of factors, both internal and external, human and environmental, has influenced the distribution of human populations in Borneo. These include warfare, disease, topography, climate, and colonization. Conversely, human populations have, until the mid- to late 20th century, exerted a generally modest influence on the Borneo landscape and its resources -- turning old growth forests into farmland and secondary growth, and lakes and rivers into fisheries. Of the former "human" variables, warfare is the most dramatic and thus has been the most extensively studied. Furthermore, the warfare of no other ethnic group in Borneo

has been more thoroughly researched than that of the Iban, often in connection to trade, swidden farming, indigenous and colonial states, and migration (e.g., Morgan 1968; Pringle 1970; Wagner 1972; Vayda 1976; King 1976c; Healey 1985). Disease, topography, and climate have received less attention (e.g., Knapen 1997, 1998), as has the historical impact of people on the environment (e.g., Brookfield *et al.* 1995, Brookfield 1997, Reid 1995).

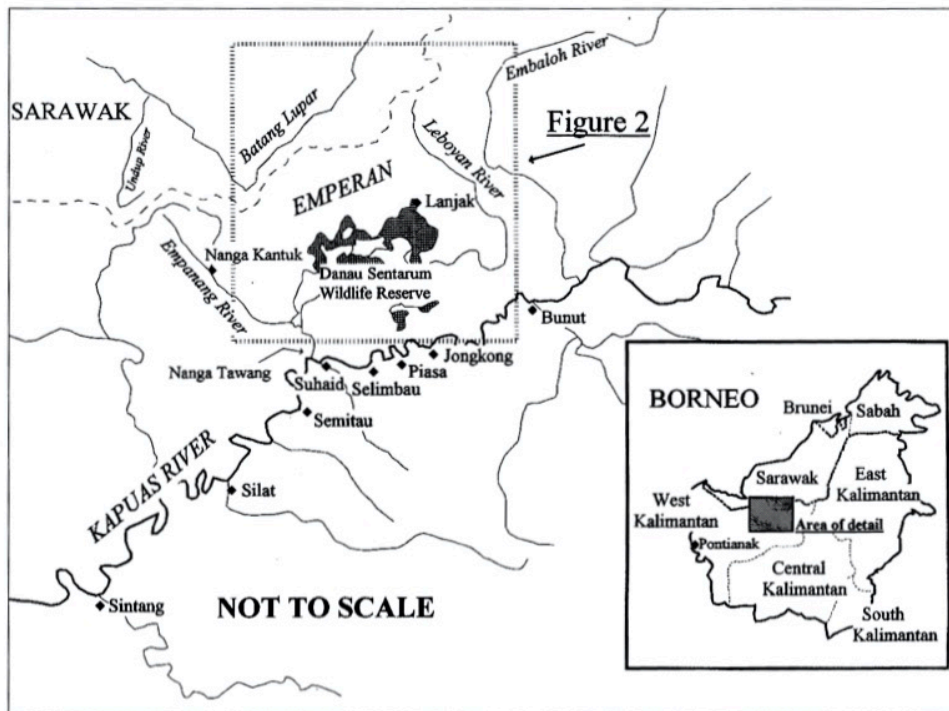
In this article,(1) I describe the settlement history of a region in what is now West Kalimantan, Indonesia, with a focus on warfare, colonial pacification, and the effects of these activities on the environment. What comes out in this history is the flux of population across a well-traveled landscape as warfare drove people away while trading and ties to local resources (farm land and fisheries, in particular) brought them back. It also shows how colonial efforts to suppress warfare initially led to intensified conflict and displacement until eventual pacification, which was often achieved through resettlement. I focus specifically on this population flux and its social, topographical, and environmental background from approximately 1823 until 1934 in the upper basin of the Kapuas River, bordering on the Malaysian state of Sarawak, a region dominated numerically by the Iban. This area is important because it is the site of significant Iban settlement and migration, and it is traversed by a major trade and migration route between the north coast and the upper Kapuas basin. Because of these two factors, the colonial authorities in both Sarawak and the Netherlands East Indies focused much of their effort there for several decades. Additionally, I focus on this 111-year period because the Dutch archival materials on the Iban and the upper Kapuas area span this period, and they document the colonial entry into the area and the aftermath of the eventual Iban pacification. Although I occasionally draw from local oral history, I rely largely on archival sources.(2)

After presenting information on the geography and modern population of the area, I outline pre- and early-19th-century settlement, based largely on oral histories. Factors that come out strongly here are endemic warfare and trade between the Iban and the various small states along the upper Kapuas River. I then move on to early Dutch colonial observations, and to the Dutch preoccupation with the suppression of headhunting and the pacification of the Iban and other groups into the early 20th century. Existing population estimates show some of the effects of all this on local populations. Then, drawing on these colonial sources, I examine the possible effects of the local population movement on the region's forests and other resources, showing a shift of interest in the colonial records following Iban pacification. Finally, I discuss the nature of the sources and how these might influence the kind of information available, particularly regarding the general dearth of information on disease and economics.

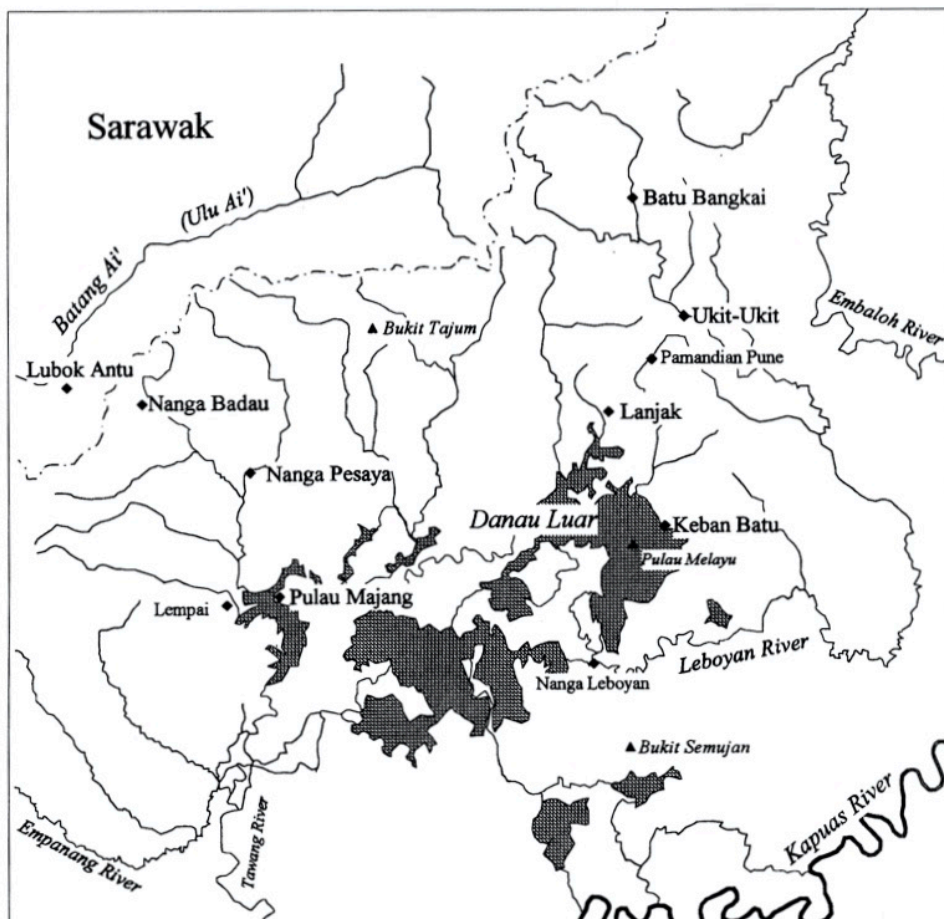
The Upper Kapuas Borderlands

The Upper Kapuas borderlands lie about 700 km up the Kapuas River from the province's coastal capital, Pontianak, and along the international border with Sarawak, Malaysia. The core of the area dealt with here is a network of lakes and seasonally flooded forests (see Maps 1 & 2). The area around the lakes to the north, east, and west consists of low-lying hills with a mosaic of old-growth and secondary forest derived from both farming and logging. In the early 1980s, the Lakes area (ca. 80,000 ha) was designated Danau Sentarum Wildlife Reserve (hereafter, the Reserve) because of its unique flora and fauna and its comparatively good

condition. Recently, efforts have been made to expand the Reserve in the surrounding hills and swamp forests by some 117,000 ha.



Map 1 - The Upper Kapuas Borderlands



Map 2 - The Emperan and Kapuas Lakes

Located within and around the Lakes area are numerous communities from two different ethnic groups -- Iban swidden farmers and Malay fishers, who rely to various degrees on its resources. The Muslim Malays inhabit the Reserve core while the nominally Christian Iban live largely in the surrounding hills. To the west and east of them live, respectively, the Kantu' and Embaloh,(3) whose subsistence economies more resemble that of the Iban than that of the Malays (Dove 1981, King 1985). Those who live within the Reserve boundaries have been in a potentially problematic status because Indonesian conservation law does not allow for human habitation of wildlife reserves. If the law had been enforced in this case, a large number of people would have been evicted and alienated from their homes. In February 1999, however, the Reserve was designated a national park (*taman nasional*) which does allow area residents to remain within the conservation area.

The Malays of the Reserve are legal inhabitants of and typically have close relations with the larger towns along the upper Kapuas. These towns are now district centers, but were once minor sultanates, generally under indirect Dutch colonial control from the mid-1800s until their abolition in 1916 (see *Staatsblad* 1916). People from these towns traditionally have come into the Lakes area in large numbers to fish during the dry season when the lakes have shrunk and fish are most accessible.(4) An estimate of the (primarily Malay) population in 1995 showed a permanent population within the Reserve of 6,575, with the population rising to 8,055 individuals in the dry season. The estimate of permanent population growth within the Reserve, during the previous ten years, was 41 percent; population density was around 6.4 per sq. km (Colfer *et al.* 1999). However, those Malays who live within the Reserve are strongly connected to the local landscape. They have developed complex systems of rights over and responsibilities to the land and its resources within the Lakes area (Harwell 1997).

The Iban reside primarily in the surrounding hills, and have long-established systems of tenure and use rights, some of which extend seasonally into the Lakes area. In the lakes catchment, they practice forms of swidden cultivation that incorporate management of the forest and other resources. In contrast to the Malays' orientation toward the Kapuas, the Iban look to nearby Sarawak, Malaysia, where they have deep cultural, social and economic ties. Iban men regularly go to Sarawak and Brunei for better wage-labor opportunities (see Wadley 1997), and social interactions are routine between the interrelated communities along the international border. In the two border districts to the north of the Reserve, the Iban population was around 4,600 in 1995 (Wadley & Kuyah n.d.)(5) with a density of around 2.5 to 3.0 per sq. km. To the east, in the Empanang River area, the Iban numbered around 5,000, along with some 700 Kantu'. To the west, along the middle Leboyan River, there were around 750 Embaloh. (Some Iban and Embaloh live further to the west, along the Embaloh River, but they are outside the area covered here.)

Pre-Colonial Settlement

Any history of human settlement must make use of native orientations to the local landscape, and for the Iban, there are two important areas. The first is the Batang Lupar, a principal river in Sarawak. Its upper course runs close by and parallel to the international border. The Iban

refer to this river as the Batang Ai' (lit., 'the river') and its upper portion as the Ulu Ai' (lit., 'the upper river'). The second is the stretch of low-lying hills and flats south of the international border and north and east of the lakes. The Iban and other neighboring people call this the Emperan (literally, 'flat land'), and the Iban there call themselves the Emperan Iban. For the Malays, the most important feature, besides the lakes themselves, is the Kapuas River, which has served for centuries as both natural resource and means of communication.

Before the mid-19th century, settlement history of the Emperan and Lakes area comes exclusively from local oral histories, and there is much detail of movement that has been lost over the generations. However, from the abundant work done on Iban pre-history, it is clear that people ancestral to today's Iban (and Kantu') originated in the middle Kapuas basin several centuries ago and migrated across the low-lying hills that today forms the international border between Malaysia and Indonesia. Some of this migration may have been cultural, that is, people already resident in Sarawak adopting the culture of closely related migrants or neighboring people with whom they regularly interacted.(6) Equally important but often overlooked is the fact that the geography of low hills along the border presents no physical barriers to travel (e.g., Pringle 1970: 210). Moreover, the Iban have occupied the Batang Lupar river system in Sarawak for a very long time.(7) It is thus likely that they lived in or, at least, made frequent use of the area north of the lakes for centuries. Even prior to actual settlement, Iban from the Batang Lupar drainage would have long been aware of the Emperan. For example, Sandin (1967: 84) mentions men from the Batang Lupar River fishing in the lakes around Pulau Majang possibly in the late 18th century.

Local accounts of pre-Iban settlement in the Lakes area are contradictory, and this probably reflects the movement of various peoples back and forth through the easily-traveled region over the centuries. Some oral accounts have ancestral Iban settling in the Emperan area prior to migrating to the Batang Lupar region (Morgan 1968: 159). According to another account, the first Iban migration into the Emperan area was from the Ulu Ai' and resulted in the displacement of peoples called Mandai and Memayan, who both were said to be related to the Embaloh. These peoples occupied the Emperan area around Bukit Tajum but, when the Iban began arriving and raiding, the Memayan and the Mandai fled to various places along the Kapuas.(8) Other Iban claim that, before their ancestors moved into the area, no other group was living in the region west of Lanjak; the Embaloh occupied the Leboyan only and did not live beyond it. Still others say there were non-Iban people living west of Lanjak; these groups are sometimes glossed as Embaloh, or as Belaban (a group related to the Iban and Kantu').

Embaloh themselves generally agree that they occupied the area up to Bukit Tajum.(9) A pre-Iban site at Keban Batu, on the eastern shore of Danau Luar, gives some support to this. It is said that people related to the Embaloh originally settled there; some of them had fled from the upper Kapuas because of raiding in the late 18th and early 19th centuries by the Kayan, a central Borneo group that was expanding into western Borneo (see Pringle 1970: 251 n. 1). These people later moved to different locations such as Pulau Majang, Semitau, and Ukit-Ukit. In addition (and possibly based on oral histories), King (1976a: 100) mentions an Embaloh settlement called Pamandian Puné, in the Lanjak area, which its people abandoned after Iban harassment.(10)

By and large, the local Malays originate from indigenous peoples along the upper Kapuas, who in the course of the last few centuries took on Islam as both a religion and a cultural identity. They are today autonomically Melayu, and are most strongly associated with the various small kingdoms that arose along the upper Kapuas River even prior to the entry of Islam.(11) For these native kingdoms, the surrounding peoples fell into one of several statuses. There was one or another subject population with differing tax and tribute obligations, and there were the free peoples, like the Iban, whom the rulers considered either enemies, allies, or potential subjects (for some background on the upper Kapuas states, see Bouman 1924, Enthoven 1903). Each Malay community in the Lakes area is derived from the population of subjects under these kingdoms' most direct influence. The Malays of Pulau Majang are supposedly descended from Sarawak and upper Kapuas Malays, and were not attached to any one Kapuas kingdom (Bouman 1952: 56).(12) Today, many there claim Suhaid origins.

Raiding and Trading

Although the entry of the Iban into the Kapuas drainage was often peaceful, warfare was the common theme in their relations with other groups (see Pringle 1970: 253). The warfare as practiced by the Iban consisted of two basic types: large-scale attacks against entire settlements by tens to thousands of warriors under the leadership of prestigious men, and small-scale raiding or ambushes (*kayau anak*) by bands of five to ten men against individuals or small groups of relatively defenseless people. Both types occurred in their relations with the Malay sultanates along the upper Kapuas and are recounted in early stories (see Sandin 1967: 86). For example, according to some oral accounts, Malays settled along the Tawang to exploit lake resources. But because of Iban attacks, the people were forced to move and eventually founded the kingdoms of Selimbau and Suhaid (see Bouman 1952: 55, 72). Some time after this, Iban raiders sacked the capital of Selimbau, and some years later, they also attacked its new capital. In the latter attack, the Iban burned a portion of the settlement and plundered the kingdom's heirlooms, which the inhabitants had thrown into the river. During this last attack, there were Iban living in the Emperan area, but afterward they fled to the Batang Lupar drainage to escape reprisals, leaving the Lakes area uninhabited for a considerable time (Enthoven 1903: 159; Bouman 1952: 73-74).

At some other point in time, Iban began gradually migrating from the Batang Lupar basin toward the lakes, but they came into continual conflict with the Kapuas states. After killing the Suhaid ruler's son-in-law, they were driven back to the Batang Lupar in a retaliation attack (Bouman 1952: 72). Some time later, the kingdom of Piasa left the Kapuas River after a dispute with the kingdom of Silat, and settled on the northern shore of Danau Luar. But after threat of attack from the Iban, they moved to their present location along the Kapuas, upriver from Selimbau (Enthoven 1903: 136; Bouman 1952: 56).

In the 1820s, Selimbau was subject to repeated Iban raiding, but in alliance with Sintang, Silat, and some Dayak peoples, the Iban were pushed back to the Batang Lupar area (Enthoven 1903: 161). In the 1830-40s, Undup Iban fled to Selimbau after revenge attacks by other Kapuas kingdoms and Saribas Iban (Enthoven 1903: 161; C. Brooke 1990: II, 208; J. Brooke 1853: III, 56-65), and some Kantu' moved temporarily to Selimbau to escape

reprisals for their support of the Undup (Enthoven 1903: 161; von Kessel 1850: 183). There was persistent conflict between Selimbau and the Iban, culminating in a large attack in 1850: A huge force of a couple of thousand Iban men in 117 boats sent the upper Kapuas area into panic, but the Iban were defeated by alliance of the upper Kapuas kingdoms. Thereafter, the Iban allied with Selimbau in later conflicts against Sintang (Enthoven 1903: 162; Bouman 1952: 74). In fact, when the Dutch re-entered the scene in 1854, they were just in time to stop a huge force from Selimbau, including Iban warriors, on its way to attack Sintang (Kielstra 1890).(13)

An emphasis on warfare would capture only part of the picture, as the Iban made regular alliances with Malay rulers along the Kapuas and along the north coast (e.g., Bouman 1952: 52; Pringle 1970: 61, 149). For example, the Iban launched the second attack on Selimbau in alliance with and under the leadership of Malays from the north coast (Bouman 1952: 73-74). These Malays may have been linked to Brunei and Sintang, long-time rivals of Selimbau. In addition, Iban genealogies are replete with honorific titles, such as *temenggong* and *patih*, which Malay rulers most likely bestowed on their Iban allies. These alliances likely promoted active trade between Malays and Iban, benefitting the leaders of both groups (see Healey 1985).

Furthermore, there was a general distinction between so-called *serah* and *mardika* Dayak groups — those that were subject to taxation by Malay rulers, and those that were entirely independent of them.(14) Like some other native peoples in the wider area, such as the Embaloh and Kayan, the Iban of Emperan and Ulu Ai' were never subject to Malay rulers and never paid tax or tribute.(15) Some Iban in the lower Batang Lupar occasionally paid a door tax to Malay chiefs connected to Brunei (Pringle 1970: 87), and Kapuas rulers made repeated but unsuccessful attempts to subjugate groups such as the Embaloh.(16) Excessive exactions by Malay rulers could often spur subject Dayak groups to move to inaccessible locations and thus avoid paying tax (e.g., Knapen 1997: 130-131), and both Dayak and traders complained to the Dutch of excessive taxation and extortion by the rulers along the Kapuas.(17) Some scholars have argued that the expansion of Hindu and (later) Muslim states "drove the Iban upstream" from their place of origin in the middle Kapuas area and thus into less accessible areas (Morgan 1968: 162-163; McKinley 1978: 26). But this cannot account for the Iban settlement along the Batang Lupar River and in the Emperan, two areas that afforded both ease of contact and places to hide in the event of attack. Iban assertiveness and mobility appears to have ensured their continued independence from Malay rulers.

Thus, trade was likely a very important link between the Iban and the Malays, especially since the Emperan area provides fairly easy access from the upper Kapuas to the north coast. Indeed, trade between the Kapuas and the north coast may have been more important, especially in the upper Kapuas, than trade up and down the Kapuas River itself. This may have been especially so because of states like Sintang that limited upriver trade to rivals (Kielstra 1890: 1106, 1112), but the archival sources provide no firm evidence to compare volumes of trade along the two routes.(18) Iban traded regularly with the Kapuas states for goods such as salt, tobacco, and cooking pots (von Kessel 1850: 198; also, Pringle 1970: 55). And Iban leaders such as Patih Ambau and Temenggong Runggah settled in key places along the trade route between the Kapuas and the north coast (e.g., Sandin 1967: 7). Patih Ambau is

said to have settled near the present site of Lubok Antu, which was a Malay trading post long before the Brooke state(19) established an outpost there (e.g., Pfeiffer 1856: 71), and Temenggong Rungguh lived for a long time near Nanga Pesaya, with direct access to the lakes and native trade (e.g., Niclou 1887: 38). His son, Temenggong Rentap, eventually abandoned the site in the 1870s after the threat of Dutch sanctions for continued headhunting. (20)

Early Colonial Contacts

This broad sweep of local pre-colonial history provides some impression of the population flux as raiding and reprisals pushed people out of the area,(21) and as the desire for trade and new farmland pulled people back. Early European accounts of the area give some further indications of this flux.

The first European to traverse the area in 1823 observed fishing huts in the lakes and double-palisaded longhouses along the Kapuas. This Dutch official made no mention of any Iban inhabitants in the Emperan, but he did observe active fishing in the lakes and note that the area upriver from Sintang was more densely inhabited than the area downriver.(22) This might have been the result of the upper Kapuas kingdoms pushing the Iban back to the Batang Lupar River in the 1820s (Enthoven 1903: 161), and so opening the lakes to fishing and the banks of the upper Kapuas to resettlement. (In times of unrest, the population of the upper Kapuas would withdraw from main water courses.)

Yet, in 1847, another Dutch official observed that Malays along the Kapuas were dispersed into small villages.(23) This is congruent with a description of the area in 1852: Iban settlements in the western Emperan lay "only at rare intervals" from each other (Pfeiffer 1856:73). More telling signs of the impact Iban raiding had on human habitation along the Kapuas were the "fewer inhabited places" below Nanga Tawang than along the Batang Lupar River (*ibid.*: 75). In contrast, in areas downstream from Sintang and not subject to Iban raiding, "[t]he banks of the river were more or less inhabited" with "many little villages" (*ibid.*: 82). (This appears to be reversed from the conditions in 1823.) By late 1857, during the initial peace brought by the Dutch, some Dayak had begun settling along the Kapuas.(24) Likewise, Pulau Majang was seen in the early 1860s as an uninhabited island, its previous inhabitants probably having fled for fear of Iban attack or because of a cholera epidemic in the 1850s (Kater 1883: 6; Hunnius 1863: 176). But, in 1867, Malays were living there again, while Iban lived nearby at Lempai (Beccari 1904: 183, 186; Hunnius 1863: 176), where the Dutch had encouraged them to settle in the 1850s (Niclou 1887: 41). In the late 1860s, a Dutch map showed six Malay villages in the western lakes, between Pulau Majang and Nanga Badau, but I have no other information on them.(25)

According to Dutch reports from the 1850s, Iban were already established in the Emperan area when the Dutch first made contact with them. The Dutch, however, regarded them as newcomers, thinking they had only migrated to the area since the 1830s (von Kessel 1850: 198). While some Iban migrants to the Emperan probably were indeed newcomers, it is likely that a good many others were actually resettling land that they or their close forefathers had farmed in the past. Local geography and the flux of warfare make this likely. One other

important factor to the north was the establishment of the Brooke kingdom in the 1840s. James Brooke, the first "White Rajah," sought to establish a British presence on the north coast of Borneo and suppress local piracy -- which consisted in part of joint Iban-Malay coastal raiding. His efforts to do this using military force may have sparked some of the Iban migrations that occurred during this time (see Pringle 1970: 78). How this affected Iban movement into the Emperan is not well known. The only explicit evidence I have found is a report that some 1,000 "Rintap's Dayak" had fled in 1854 from Sarawak to the upper Leboyan River.(26) These refugees might have been from the upper Skrang River of Sarawak: The previous year, Iban forces allied with Brooke destroyed twenty Iban longhouses associated with Rentap, a famous Skrang leader who led a long resistance against the Brooke state in the 1850-60s (Pringle 1970: 91-92).(27)

Taxes, Heads, and Migration

It was generally over the issues of taxes, headhunting, and migration that the Iban clashed with the Brooke and Dutch governments. Various Iban groups along the lower reaches of Sarawak's rivers had occasionally paid a "door tax," or tax on households, which Malays collected in the name of the Sultan of Brunei. When James Brooke established his kingdom, he instituted a similar tax (Pringle 1970: 87). Later on, under the second White Rajah, Iban paid an annual door tax of one dollar per household. This was one dollar less than what other people paid, because the Iban were obligated to serve on Brooke's expeditions. The Iban were very sensitive to taxes and came to regard the one-dollar door tax as customary and inviolable (*ibid.*: 162-164). The Dutch also taxed their Iban subjects, but did not appear to collect the tax regularly (see below). All parties involved -- Iban, Dutch, and Brooke -- realized that taxes symbolized the authority of the State over the Iban, and the Dutch pointed out that in Sarawak taxes were regularly demanded by and paid to the government.(28) A Dutch resident stressed: "The Dayak recognizes no authority than that to which he brings taxes" (Kater 1883: 3).(29) This meant, of course, that the surest way to signal rebellion was to refuse to pay tax (Pringle 1970: 164).

Headhunting was another bone of contention between the Iban and colonial governments. The Iban regarded severed heads as essential to their way of life for several reasons. First, a human head was needed in order to lift mourning taboos.(30) Second, one avenue to leadership in Iban society was through the organization of raiding parties, and young men were ever eager to prove themselves worthy of marriage through the acquisition of a head or two.(31) Even greater prestige accrued to men who had the proper dreams to lead very large forces of warriors. They had claim on any heads taken in such large-scale attacks and were able to distribute the loot among their followers. Influence and authority rested on the numbers of people under one's sway, and local and regional Iban leaders were hard pressed to allow their warriors to raid, despite repeated promises to the colonial officials not to do so. There were military reasons for raiding as well, such as the intimidation of enemies. For their part, the colonial powers were determined to stamp out the practice, but appeared to be more divided about its morality. Charles Brooke "could not severely blame them for head-hunting. It was an old established custom of their forefathers, and they considered it their duty to maintain it" (1990: I, 144). The Dutch were less romantic, regarding it as detestable, horrible, and standing in the way of both peace and development (e.g., Kater 1883: 2-3, 6; Niclou

1887). Occasionally, however, they gave tacit approval to Iban raiding if it appeared to be for "defensive" purposes,(32) while the Brooke government actually sanctioned some raiding not connected with government expeditions (Pringle 1970: 228, 257). For both governments, this was probably a pragmatic distinction when they could not maintain military control over Iban who tended to be well-disposed to their rule.

Equally important to the Iban was the freedom to migrate to new lands. Some have argued that the local ecology and swidden farming practices did not allow for sustained use, as the human population increased, thus spurring migration (see Cramb 1989), but a possibly more decisive reason was Iban ideology.(33) Along with success as a warrior, success in farming and pioneering land were ways to prestige and authority. Iban land-tenure rules dictate that households gain primary rights over land cut from old-growth forest, thus encouraging ambitious leaders in well-settled areas to become pioneers. Another motive for migration was to gain better access to old-growth forest areas rich in non-timber forest products (NTFPs), and forest product collection often preceded migration (e.g., Kedit 1993: 104-107). The relation between NTFP-collecting and headhunting was strong (e.g., Nieuwenhuis 1900: II, 125, 201, 231-234, 241; Sellato 1994: 142). For example, Iban from the Rejang River in Sarawak were most often accused of collecting both NTFPs and heads in the upper Kapuas. (34) Furthermore, revenge raiding and government expeditions spurred some migrations, and the Iban often resisted colonial authority by moving to more inaccessible places. The Brooke government expended much energy dealing with Iban migrating into the Rejang River basin (Pringle 1970), and the Dutch did so to a lesser extent as Iban encroached on Embaloh and Leboyan settlements (see King 1976a for an excellent summary). Both governments would on various occasions allow (and, in the case of the Brookes, actively encourage), resettle, or hinder Iban migrants.

Suppressing Headhunting

During their early presence in the 1850-60s, the Dutch called the Iban "the terror of the Kapuas" (*de schrik der Kapoeas*; Kater 1883: 4). The first treaty with Iban leaders, in March 1855, was meant to end raiding and headhunting (Kielstra 1890: 1493-1494), but many subsequent efforts were needed before the Iban finally stopped.(35) Indeed, just a few years after this agreement, the Emperan Iban with their Ulu Ai' kin launched several terrifying attacks on Kapuas settlements, causing Suhaid and other kingdoms to resurrect recently abandoned defensive works.(36) In addition to fining the perpetrators of such deeds, the Dutch in 1861 imposed an annual tax on the Iban — one guilder or 100 ironwood shingles per household. But early on, this tax was only sporadically collected, and then not at all, due to continued unrest in the area.(37)

In the early 1870s, Dutch reports frequently summarized the situation in the area by saying that headhunting was the order of the day. Rumors continually circulated of planned Iban attacks on upper Kapuas settlements. (This was apparently a recurring problem, as there were similar threats in the early 1860s [Hunnius 1863: 178]). The rulers of Bunut and Jongkong also planned pre-emptive attacks on the Iban, which the Dutch forbade. For both small- and large-raids, Iban warriors made frequent use of the lakes to attack into the Kapuas by boat, and Kapuas Malays obstructed passages with tree trunks to prevent Iban raiders from gaining

access to their settlements (Teysmann 1875: 302).(38)

During the 1870s and 1880s, continued Iban raiding and Dutch measures to stop it appear to have created a situation that promoted settlement insecurity. The Dutch began to take increasingly aggressive actions to stop Iban raiding. In the early 1870s, reports tell of Emperan Iban hiding their valuables for fear of Dutch reprisals for headhunting, and Dutch patrols burned longhouses and threatened others in order to confiscate recently-severed heads. The Dutch forces also cut down fruit trees, which was intended to remove inherited and inheritable claims to the area (see, e.g., Sather 1990). In dealing with troubles with the Iban of Batu Bangkai, Dutch policy developed to move the border-dwelling "rebels" to more accessible areas near the lakes, and some Iban actually moved to the eastern shore of Danau Luar under this plan. In Sarawak, Charles Brooke also planned to move "his" Iban away from the border, as a solution to the problem of raiding into Dutch-held territory.(39)

By the mid-1870s, the Batu Bangkai Iban were still resisting resettlement. Temenggong Rentap, living at Nanga Pesaya, and others Iban nearby abandoned their longhouses for fear of Dutch reprisals for headhunting in alliance with the Batu Bangkai Iban. A Dutch patrol subsequently burned Rentap's longhouse and destroyed his rice fields (see Gerlach 1881: 315). Iban near Lanjak later evacuated their longhouses for fear of Dutch reprisals; some even burned their own longhouses to deprive the Dutch of the satisfaction, and the Dutch burned other Iban longhouses over raiding on the south bank of the Kapuas. Iban abandoned their longhouses in the Nanga Badau area for fear of reprisals after a large Iban attack on the Kantu', and Dutch patrols burned a number of them and slashed their rice fields. Several years later, the Batu Bangkai Iban, still resisting resettlement, fled their longhouses under threat of a Dutch force; the Dutch burned those longhouses that had not been burned already by their fleeing residents, and slashed their rice fields. In the late 1870s, Rentap's longhouse was again burned and his fields slashed. And in a further attempt to impose their authority, the Dutch levied an annual tax of two guilders per household, but it is not yet known how systematically this tax was collected.(40)

Within the Lakes area, settlement insecurity appears to have continued. For example, a colonial map drawn from data taken in 1863 and 1868-69 shows several Malay villages between Pulau Majang and Nanga Badau.(41) These were abandoned wholesale in the 1870s, during a period of heightened cross-border raiding. The Dutch built a small fort at Pulau Majang to serve as a base for their patrols and to protect the Malay settlement there. But during a large Iban attack on the Kantu', the Malays abandoned the site, despite the Dutch presence.(42) (The Dutch also implemented a vaccination program in 1882, after a smallpox outbreak in Pulau Majang, implying a subsequent resettlement of the island.) Some Malays supposedly lived on Pulau Melayu (at least seasonally), making small gardens there, but the Dutch government forbade them to stay because of the threat of Iban attack (Enthoven 1903: 148). In 1879, along the lower Leboyan River, a Dutch map recorded several abandoned house sites, although these may have been seasonal Malay or Embaloh fishing huts.(43)

In neighboring areas, displacement of long-established populations occurred as well. To the east, Embaloh abandoned their dwelling areas in the upper Leboyan River after sustained attacks from Sarawak Iban well into 1884 (Enthoven 1903: 58). Reflecting the repeated

raiding they endured, their longhouses clustered for safety along the middle Leboyan River and were fortified with palisades (*ibid.*: 59). To the west, Kantu' began an exodus from the Empanang River system to settlements on the Kapuas in 1879.(44) After 1881, this accelerated, leaving the Empanang uninhabited for about a decade. Iban raids were partly responsible for this, but another reason was that the Dutch awarded the Empanang territory to Selimbau in 1881, and many Kantu' refused to become subjects of that Malay kingdom (*ibid.*: 70-71).

Pacification

The constant, unrepentant raiding and headhunting by the Ulu Ai' and Emperan Iban back and forth across the border culminated in 1886. With Dutch permission to cross the border, a Sarawak government punitive expedition attacked both groups. In Sarawak style, the government force consisted mainly of Iban warriors from other areas of Sarawak, with scores to settle with those in the Ulu Ai' and Emperan. Such forces were often little more than large-scale, government-sanctioned and -led headhunting raids. In the course of what is known as the Kedang Expedition, some eighty longhouses on both sides of the border were burned and about twenty people killed. On Dutch-controlled territory alone, forty-one longhouses were destroyed and sixteen people killed (for more on this, see Niclou 1887, Pringle 1970, Wadley 2000b).(45)

The Dutch took quick advantage of the situation to resettle the Emperan Iban away from the border to designated places close to the lakes. They gave the Iban the choice to move or have their longhouses burned down and their rice fields destroyed. The Ulu Ai' Iban in Sarawak were also resettled away from the border. The Dutch arrested several Iban who refused to move, burning their longhouses and slashing their fields. (They also undertook a smallpox vaccination program and, in 1888, installed a vaccinator at Nanga Badau for two years.)(46) Iban were forbidden from farming close to the border. Repeated attempts to farm there resulted in the slashing of rice fields, but by the mid-1890s, they were occasionally but unofficially allowed to farm there, depending on the inclination of local Dutch officials (Enthoven 1903: 227).

By that time, the situation had calmed down enough for the Dutch to withdraw their military forces from the area and impose a new annual tax of three guilders per household.(47) Pulau Majang then held the remains of the watch post, a few Malay houses, and a couple of Chinese shops (Enthoven 1903: 230). Collection and trade in NTFPs expanded with the peace, and Iban went to Pulau Majang (and to Lubok Antu) to sell their produce.(48) But the Iban's headhunting reputation continued, causing panic in Kapuas trading settlements when Iban showed up to sell forest products (*ibid.*: 233). The 1890s also saw the movement of Iban into the Lakes and lower Leboyan areas. For example, as a result of successive poor harvests around Lanjak, some Iban migrated in the 1890s to the south bank of the lower Leboyan (Molengraaff 1900: 120). This migration may have been motivated in part by the expanding NTFP trade and, as mentioned earlier, Iban residential migration often followed forays by men collecting forest products. For example, in the late 1880s, Iban men from the Lanjak area were captured by Selimbau men while collecting forest products on land claimed by that kingdom. Although this at first sparked a feud with the kingdom of Selimbau, it led to a

boundary settlement between Iban and Selimbau lands -- but later, thirty Selimbau men were caught collecting NTFPs on the Iban side of the Leboyan.(49) This recurrent feud does not seem to have thwarted the Iban migrations that occurred after this. The Dutch *controleur* (district official) was sent to deal with these people (*ibid.*: 120-121), and they were later resettled to the north.

This was just prior to another period of unrest along the border, involving Iban rebellions in Sarawak, which lasted until 1909, but the Emperan and the Kapuas were not directly affected. Despite some increased psychological insecurity during the time, regular Dutch patrols ensured safety. In an additional effort to prevent further problems, the Dutch military in 1917 forcibly resettled troublesome Iban of the upper Leboyan to the middle and lower Leboyan and to the eastern Lakes area (Bouman 1952: 83).(50) Iban oral histories recall how their leaders were arrested and threatened unless they moved downriver. In addition, Iban continued to encroach on Embaloh lands along the Leboyan and Embaloh rivers (Bouman 1952: 54; King 1976a) and, in the 1930s, there was some movement back into the upper Leboyan by Iban previously resettled downriver.(51) By the 1930s, it appears that Malays were settled at Nanga Leboyan (de Mol 1933-34: 85; Polak 1949: 17) and most likely at other places in the Lakes area, at least during the dry-season fishing period (Colfer *et al.* 1997).(52)

Population Estimates

After the Dutch began in the 1870s to systematically suppress raiding, the Emperan Iban population appears to have declined and then stabilized. Population estimates from the 1830s to 1933 give some indication of this (Table 1).(53) The figures for the 1830s and 1840s seem far too high, and probably include Iban living in the Batang Lupar drainage. The sharp drop in population between 1855 and 1881 most likely resulted from migration back to the Batang Lupar or into the Rejang River system. For example, in 1879, Dutch officials reported that 26 longhouses with some 223 households (around 1,115 people) had moved back to Sarawak after being harassed by repeated Dutch expeditions against headhunters.(54)

The slight increase from 1881 to 1886 may have been due to Iban migrating in from Sarawak. For example, the Dutch successfully collected \$115 from recently migrated Sarawak Iban who owed back taxes to the Sarawak government.(55) The shallow decline between 1886 and 1894 may have been due in part to some western Emperan Iban moving to the Lubok Antu area after being attacked by enemies further to the west.(56) Additionally, the apparent population growth between 1894 and 1921 may simply be due to Undup Iban migrants to the upper Merakai River (north of the Empanang) being counted with the Emperan Iban. It is difficult to know what effect the various vaccination programs had on the local population but, judging from these figures, periodic vaccinations probably helped to keep the population stable.

In only one instance in the colonial reports I have read is there a population figure for Malays living in the Emperan: In 1933, there were 109 Malays in two villages in the Batang Lupar subdistrict, which encompassed the Emperan.(57) No village names were given, but one is most certainly Pulau Majang, a long-time Malay settlement. Information is a little more extensive for the Embaloh living on the middle Leboyan and for the Kantu', and it shows the

possible effects of displacement by the Iban (see Tables 2 & 3). The Embaloh population declined quite sharply between 1879 and 1894, and this is more than likely related to repeated raiding by Ulu Ai' and Emperan Iban in the early 1880s. During this time, many Embaloh of the Leboyan moved to closely related settlements on the Embaloh River. The further decline between 1894 and 1930 may be due to Iban encroachment on Embaloh lands (see King 1976a), with more movement to the Embaloh River. The Kantu' withdrawal from their Empanang homeland in the 1830s-1840s and in the early 1880s can be dramatically seen from the figures between 1822 and 1894 (although the 1822 figure may include closely related groups such as the Belaban).(58) Only in 1933 is there information on three communities that had moved back to the Empanang; all the other Kantu' were scattered up and down the Kapuas.

Environmental Effects

Given the highly anecdotal nature of the Dutch archival data, it is difficult to determine exactly what the environmental effects were from this continual movement of people in and out of the area. However, the effects were likely periodic as people fled the area in times of unrest and returned when it was safe. Thus, for example, the impact on the fisheries was probably beneficial as there would be some dry seasons when very few people from either the Kapuas or the Emperan fished. The already sparse human population would have been made periodically even sparser, thus reducing the impact on the local forest and water environments.

In a few accounts, Dutch officials mentioned the local economy, but during the late 19th century, the troubles with Iban raiding overshadowed more mundane concerns. Officials did observe that the lakes were a source of fish, honey, and wax for sale among the Malays, and birds' eggs for home consumption among the Iban (Hunnius 1863: 176; Gerlach 1881: 294; Enthoven 1903: 150-151).(59) Later on, in the early 1900s, they noted the importance of the lakes for crocodile hunting and fishing, mainly by Malays from the Kapuas (Bouman 1952: 62-63). There is also mention of the entire Malay population in the area fishing in the lakes during the dry season, with the Dayak being less involved.(60)

Regarding the surrounding forests, the Dutch noted areas of denuded forest in the Lakes area and attributed them to a combination of Malay and Iban dry-season burning and prolonged drought (Gerlach 1881: 293; Enthoven 1903: 148-149; Molengraaff 1900: 88). In the 1890s, little old-growth forest is said to have remained in the Emperan; most vegetation, except that on the steep slopes of mountains, consisted of *Imperata* grass, shrubs, and secondary forest (Enthoven 1903: 227-228; Molengraaff 1900: 90, 101). Officials called Iban farming *roofbouw* (lit., 'plunder farming') because of its apparent, rapid depletion of forests and soil fertility (Bouman 1952: 58). They mentioned frequent Iban movement in search of fresh old forest to farm, and cited the Iban explanation that they had to deal with more weeds in farming secondary growth.(61) The Dutch made early attempts to control farming along the border and subsequent (and failed) efforts to encourage irrigated rice cultivation (Bouman 1952: 59-60).(62) They also attempted to regulate Sarawak Iban migration into Dutch territory.(63)

If we allow that colonial officials may have been fairly accurate in describing the situation, their observations must still be placed in context. The Dutch were seeing Iban practices under conditions of intense instability brought on by Iban raiding itself, revenge attacks from the Kapuas, and colonial punitive expeditions from both sides of the border. For example, Charles Brooke (1990: II, 160) quoted a local observer as saying: "After a man has had his house plundered and burnt, and finds resistance hopeless, it is some time before he again recovers himself sufficiently to build another and better one." The same might be said of settled agriculture (see, e.g., Freeman 1970: 130-143). Furthermore, local population density is likely to have increased from colonial resettlement efforts, or at least shifted to new locations. This may also partly explain the lack, observed during the 1890s, of old-growth forest in the Emperan. In the years immediately after 1886, resettled Iban likely laid claim to farmland for their households in the customary way -- opening up old-growth forest in areas most accessible to them and to European observation.

From another angle, a Dutch official in West Borneo in the 1850s observed that, because of swiddening, there appeared to be no *true* primary forest (von Gaffron 1858-59: 224). He claimed that the forests he saw were 130-150 years old, which would certainly be classified as old-growth forest today. His point was, however, that given the widespread practice of swidden cultivation, they were not likely to be *virgin* forest, but rather very old *succession* forest. Thus, while the Dutch decried forest destruction, it may well have been that much of the forest the Iban had been farming in the Emperan was in fact very old secondary growth, farmed and abandoned in the past.

However, there may still be something of an institutional bias against swidden cultivation, which colored colonial observations. For example, not until the 1930s is there any mention of swamp rice cultivation,(64) even though the Iban had long farmed swampy lands throughout the Emperan and, since the 1890s, in the eastern Lakes area. In addition, a geological survey in the 1890s mentioned the lack of old-growth forest in Iban areas, but at the same time provided photographs showing swiddens cut from at least older secondary forest (Molengraaff 1900: 88, 120). Another Dutch visitor, in 1949, drew the all-too-sharp distinction between abandoned fields on poor soil covered with *Imperata* grass and various bushes, and the "virgin" forest beyond (Polak 1949: 19).(65) This suggests that the officials missed a good deal of the complexity of the local system. Most Emperan Iban today practice settled dry swidden agriculture in a long-fallow cycle, with supplementary swamp swiddens on a short fallow and managed forest tracts. Recent satellite research shows something close to sustainability for this system (Dennis *et al.* n.d.).

By the mid-1890s, the colonial authorities began to regard the Emperan as a politically and economically insignificant region.(66) Yet, with the reduced threat of raiding and the decreased need for continual Dutch attention to military matters, we begin, in the 1920s and on, to find in the archives more references to economic pursuits. For example, in 1918, the Dutch built a salt storehouse at Pulau Majang because of the abundant fish harvest during that dry season. In the late 1920s, they set up beacons for navigating the lakes, and renovated them in 1934. They began to set regulations controlling *tuba* fishing(67) in the lakes and rivers by both Malays and Dayak in the later 1920s, and to look into ways to improve fishing methods in the 1930s.(68) As another sign of stability, they mentioned the construction of

swamp swiddens in the Lakes area during the 1930s. Lumbering of *Fagraea* and *Shorea* trees there also appears to have increased during this period. Dutch officials also note various other productive activities in the Lakes area, such as snake and monitor lizard hunting for their skins, crocodile hunting for its gall bladder by both Malays and Dayak, bee keeping for honey and wax by Malays and some Dayak (de Mol 1933-34: 85), and gold mining on Bukit Semujan by Malays from Jongkong in 1932.(69)

Conclusion

Several factors come out strongly in the settlement history of the upper Kapuas borderlands: The movement of people within, into, and out of the region appears to have been heavily influenced by pre-colonial endemic warfare, native trade both before and during the Dutch period, colonial efforts to suppress headhunting, and later, relatively successful pacification. Pre-colonial conflict between the Iban (and other Dayak) and the various upper Kapuas kingdoms seems to have resulted in periodic abandonment of the Emperan region, while the lure of trade, forest products, farmland, and fishing pulled people back in times of peace. The mid-1800s, when the Dutch first made contact with the Iban, may have been one such period, as the Iban were then expanding into the Emperan. Yet this expansion put the Iban into direct conflict with the growing Dutch presence in the upper Kapuas, and the new colonial authorities worked for nearly three decades to pacify the Iban on their side of the border. The instability brought by both Iban headhunting and Dutch (and Brooke) punitive measures affected local settlement patterns, as did the stability brought by subsequent pacification.

The effects on the local environment are difficult to gauge as the archival sources are rather sketchy regarding these issues. It may be safe to assume that the fisheries and forests within and around the Lakes area benefitted from the lack of permanent, pre-colonial settlement. No doubt Iban spreading into the Emperan area affected the hill forests by their farming and NTFP-collecting activities, but given the low population density (which is still low today), this effect would not have been very great. (It may have been occurring well prior to the 19th century, with Embaloh populations around the eastern lakes, and Iban and closely related peoples periodically in the western Emperan.) Indeed, Dutch observations of how Iban farming destroyed the forest were made following pacification (and resettlement), a time that might have been dominated by forest clearance around colonially-accessible settlements. Environmental impacts in the early 20th century are equally spotty, but still suggest no substantial effects on forests and fisheries.

One factor that does *not* come out strongly in this history is epidemic disease. Yet, disease as a factor influencing local human movement should not be underestimated. For example, in 1877, a peacemaking that the Dutch had brokered between Sarawak Iban and Emperan Iban fell through as the Emperan party refused to go to Sarawak because of a cholera outbreak there.(70) There are also oral accounts of smallpox epidemics devastating Iban longhouses, and of Embaloh during cholera epidemics abandoning (and never re-occupying) very substantially-built longhouses. Indeed, endemic and epidemic diseases may have been the primary factors in the low pre-20th-century population of Borneo (e.g., Knapen 1998). If this is true (and I certainly believe that disease has been *at least one* of the more important variables), then the fact that there is not more information on the subject in the colonial

archives for the Emperan is initially puzzling. As I have shown above, there is only occasional mention of disease outbreaks and vaccination programs.(71)

However, considering what the Dutch were confronting in the area at different periods puts this lack of "disease evidence" into perspective. From the 1850s to the 1890s, colonial officials were concerned with one overriding objective: to pacify what they saw as a troublesome border people. Their efforts and Iban resistance in this regard come out most strongly in the documents. Following pacification, from the mid-1890s into the 1930s, the Emperan had lost its importance in West Borneo colonial policy, and Dutch attention to it in all matters fell off dramatically. Thus, it may be that colonial officials did not think disease worth reporting on when they were so preoccupied with a more dramatic menace, headhunting. By the time of pacification, the shift in attention to other regions may have overshadowed more discreet efforts at disease prevention. This is certainly speculative, and a better sense of these issues may come out of future archival research.

NOTES

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2 Although the inclusion of more oral historical material would provide greater local perspective to the colonial documents, it would take this article well beyond the limits of the space available in this journal.

3 I use the term Embaloh, in its restricted meaning, to refer to the native, non-Iban inhabitants of the Leboyan and Embaloh rivers. This does not then include the related Palin, Lauh, or Taman groups (see Wadley 2000a).

4 For early descriptions of the drought-flood cycle in the lakes, see Teysmann (1875) and Enthoven (1903).

5 The total Iban population in West Kalimantan, as of 1996, was around 14,000 people; this is in contrast to over 500,000 Iban in neighboring Sarawak (Wadley & Kuyah n.d.).

6 Iban have been known to assimilate other, less numerous allies and war captives (for summaries of Iban expansion, see Sandin 1967, Pringle 1970, Morgan 1968, McKinley 1978).

7 Pringle (1970: 213-214) notes that the Iban in the upper Batang Lupar River (the Ulu Ai' Iban) consider themselves the original inhabitants and, in contrast to other Iban groups, they have no oral histories of assimilating or displacing other, non-Iban peoples.

8 The Memayan might be the same people as the Mayan of the Selimbau area (see King 1976b: 100).

9 King (1976a: 96) suggests that the Embaloh and related groups were already established in the upper Kapuas about twenty generations ago, based on genealogies.

10 King locates this site "upriver" from Lanjak, and claims that Embaloh communities between Lanjak and Ukit-Ukit "fought with migrating Iban and eventually moved into the main Leboyan settlement areas" (1976a: 100). He cites Enthoven (1903: 231) regarding the Iban, but Enthoven only noted that this area remained unexploited for many years due to feuding between Embaloh and Iban. From my fieldwork in the area, Pamandian Puné appears to have been a sacred pool along the trail between Lanjak and Ukit-Ukit. It is called Lubok Bunut by the Iban. Local Iban do not know of any early Embaloh settlements in this area, although these sites could well have been farmed over after Iban settlement and thus erased from Iban oral history.

11 The oldest kingdoms of the upper Kapuas are Sintang, Selimbau, and Suhaid, followed by Silat, Jongkong, and Piasa. Bunut was the last kingdom to be established, around 1815 (e.g., Enthoven 1903: 94).

12 These Malays might also have Embaloh ancestry (above). A visitor in the late 1940s unflatteringly called them *verbasterde*, 'degenerated Dayaks' (Polak 1949: 15).

13 The Dutch had some sporadic contact with the upper Kapuas River area between 1822 and 1847 but did not begin to truly colonize the area until after 1854 (see Irwin 1955, Wadley 2000b).

14 This distinction is a simplification, as there were two basic types of taxation — *hasil* (a direct and fixed tax on households) and *serah* (forced trade in goods, such as salt and iron, at inflated prices). Dayak (and Malays) living close to a ruler's settlement had additional duties (see King 1985: 59).

15 Algemeen Rijksarchief (The Hague), Ministerie van Koloniën [hereafter ARA], Openbaar Verbaal, 22 September 1857 No. 9.

16 Arsip Nasional Republik Indonesia (Jakarta) No. 62 (hereafter ANRI, with the number referring to the 1999 inventory list [see Kelompok Kerja 1999]), Geheim Politiek Verslag, 1857.

17 ARA, Geheim Verbaal, 18 September 1854 No. 344 Geheim.

18 Early on, the Dutch recognized the importance of the trade route through the Kapuas Lakes area and became particularly worried about trade with their regional rival, Sarawak. However, they failed to indicate the volume of this trade (ANRI No. 17, Algemeen Verslag, 1856; ANRI No. 58, Politiek Overzicht, 1854).

19 The British adventurer, James Brooke, reigned over Sarawak from 1841 until 1868, and Brooke rule continued under his successors, Charles (1868-1917) and Vyner (1917-1946) (see, e.g., Pringle 1970).

20 By this time, the volume of trade may have dropped off due to Dutch efforts to control what they saw as smuggling to and from Sarawak (see Kielstra 1890: 1483-1485).

21 In 1861, during the first European trip up the Batang Lupar River, Charles Brooke reported people fleeing at a report of Kayan raiders. He wrote: "The inhabitants of this river are much scattered, and there is little unity among them. They [...] fly like a flock of sheep on hearing of an enemy. We passed many remains of villages ..." (1990: II, 191-192).

22 Department of Historical Documentation, Koninklijk Instituut voor Taal, Land en Volkenkunde (Leiden), Register der Handelingen en Verrigtingen van de Provisionele Gezaghebber ter Westkust Borneo, C. Hartmann, Pontianak, 23 Mei 1823 t/m 13 Augustus 1825.

23 ANRI No. 224, Aanteekeningen omtrent de Landen binnen het Stroomgebied van de Kapoeas, D.W.C. van Lijnden, 1847.

24 ANRI No. 139, Kort Verslag, November 1857.

25 ARA, Kaarten en Tekeningen No. 1025.

26 ANRI No. 17, Algemeen Verslag, 1856.

27 This Rentap should not be confused with Temenggong Rentap, an Emperan Iban leader (see Wadley 2000b).

28 ARA, Mailrapport [hereafter MR] 1877 No. 182 and 440.

29 "... *de Dajakh erkent geen gezag dan dat waaraan hij belasting opbrengt*" (see ARA, MR 1877 No. 440 for an earlier, less elegant statement).

30 In later years, both Brooke and Dutch officials kept confiscated human heads that could be borrowed by communities needing to lift such taboos (e.g., Bouman 1924: 188).

31 For the importance of headhunting in Iban culture, see Davison & Sutlive (1991), Pringle (1970: 21-25), von Kessel (1850: 197), Kater (1883: 2-3).

32 For example, ARA, MR 1873 No. 206.

33 It is important to note that Iban have been farming in places like the Saribas and Batang Lupar river systems for a long time, and still do, without appreciable degradation of the landscape (Cramb 1993), and some Emperan communities have been farming their forests for over 150 years (see Dennis *et al.* n.d.; also, Padoch 1982).

34 ARA, MR 1889 No. 899.

35 For accounts of Iban-Dutch relations, see Kater (1883); Niclou (1887); Kielstra (1893: 963-969, 2100-2103); ARA, *Memorie van Overgave by Burgemeestre, 1934* (hereafter MvO, KIT 999), Bijlage: "Onze Verhouding tot Serawak en de Batang Loepar-Bevolking" (hereafter "Onze Verhouding").

36 ANRI No. 64, *Geheim Politiek Verslag*, 1859; ANRI No. 142, *Kort Verslag*, March 1860.

37 ARA, MR 1877 No. 440.

38 ARA, MR 1872 No. 499; MR 1873 No. 50, 405, 483, and 553; MR 1874 No. 196.

39 ARA, MR 1874 No. 196 and 420; MR 1880 No. 196; MR 1871 No. 649; MR 1873 No. 206.

40 ARA, MR 1875 No. 835; MR 1876 No. 1000; MR 1877 No. 43, 65, and 182; MR 1878 No. 360; MR 1879 No. 285, 757, 771, and 788.

41 ARA, *Kaarten en Tekeningen* No. 1025.

42 Subsequent patrol posts were set up in the late 1870s at Nanga Kantuk, Nanga Badau, and Lanjak. These were designed to control raiding from Sarawak, and in the early 1900s various Iban longhouses were designated as patrol posts during border unrest.

43 ARA, MR 1877 No. 43; MR 1878 No. 219; MR 1880 No. 219; MR 1881 No. 352; MR 1882 No. 768.

44 ARA, MR 1886 No. 689; MR 1879 No. 771.

45 ARA, MR 1886 No. 293 and 342. One year prior to the Kedang Expedition, Brooke had sent a force of some 1,000 Iban under Malay leadership across the border into the upper Mahakam River. This "little frontier affray" was in retaliation for the murders of seven Iban

by people from the upper Mahakam. It left over 234 people dead and depopulated the area for some time (Smythies 1955: 498-499; Nieuwenhuis 1900: I, 23, 104; II, 19, 85). However, it does not appear that Brooke had Dutch permission or cooperation in this incident, as the latter did not have an official presence in the area until the 1890s.

46 ARA, MR 1886 No. 293, 342, 364, and 733; MR 1888 No. 301.

47 ARA, Openbaar Verbaal, 6 June 1895 No. 12. This was one guilder lower than that levied on other tribes in West Borneo. The official explanation was that the Iban were not wealthy enough to pay the higher tax, but the colonial government may have wanted to prevent an Iban tax revolt after they had finally established a general peace in the Emperan.

48 ARA, MR 1889 No. 467. For a similar economic effect of Pax Neerlandica, see Knapen (1997: 136).

49 ARA, MR 1889 No. 467.

50 ARA, MvO, KIT 999, "Onze Verhouding", p. 29.

51 ARA, MvO, KIT 999, p. 2; KIT 999, "Onze Verhouding", p. 29.

52 The last large-scale Iban raid occurred in 1932, but it was by Sarawak Iban and was not directed toward the Lakes area or the Kapuas (ARA, MvO by Oberman, 1938 [hereafter MMK 265], p. 36).

53 Given the lack of information on how these figures were obtained, it seems prudent to treat them with some skepticism. Moreover, they do not include Iban living outside of the Emperan area (except for the earliest figure), such as those Iban on the upper Embaloh River and elsewhere in the Upper Kapuas district.

54 ARA, MR 1879 No. 771.

55 ARA, MR 1887 No. 219.

56 ARA, MR 1891 No. 928.

57 ARA, MvO, KIT 999, Bijlage 1.

58 The early population figures for the various ethnic groups and kingdoms in West Borneo seem unduly high. This may have been "wishful thinking" on the part of Dutch administrators, to convince Batavia that there was a much larger population of potential tax payers than actually existed. For example, in 1832, there were estimated to be 10,000 people in twelve villages on the Embaloh River (Department of Historical Documentation, Koninklijk Instituut voor Taal, Land en Volkenkunde [Leiden], Aardrijkskundige beschrijving van Borneo's Westkust: eerste hoofdstuk, D.J. van den Dungen Gronovius, 1832). But in the late 1840s, after further investigation, there were some 3,000 Embaloh on the Leboyan,

Embaloh, Palin, and Lauh rivers (Van Lijnden & Groll 1851: 583) and around 1,000 on the Embaloh and Leboyan (von Kessel 1850: 185). These later estimates seem much more reasonable.

59 The earliest known report (1823), tells of Kapuas peoples collecting wax, honey, fish and fish spawn in the lakes (ARA, Aantekeningen betreffende Borneo [1802-1827], Algemeen Verslag van de Boven en Binnen Landen ter West Kuste Borneo gelegen aan de Rivier Kapoeas, 20 December 1823, C. Hartmann).

60 ARA, MvO by Scheuer, 1932 (hereafter KIT 997), pp. 4, 25-26; MvO by Werkman, 1930 (hereafter KIT 995), p. 18.

61 ARA, MvO, KIT 995, p. 5; see also Freeman (1970).

62 ARA, MvO, KIT 997, p. 22.

63 ARA, MvO, KIT 995, p. 6. Efforts in Sarawak to control internal Iban migration included the creation in the early 1930s of the Lanjak-Entimau Protected Forest to make it illegal for Iban to move into the Batang Lupar headwaters. This forest, now called the Lanjak-Entimau Wildlife Sanctuary, was dubbed a "political forest" because of the reasons for its creation (Pringle 1970: 280).

64 ARA, MvO, MMK 265, p. 36.

65 See also Helbig's 1937 description of the Emperan (Helbig 1982: I, 203-217; II, 223-224).

66 ARA, Openbaar Verbaal, 24 May 1895 No. 64.

67 This refers to catching fish using poisons from such plants as *Derris* spp.

68 ARA, MvO by James, 1921 (MMK 262), p. 12; MvO, KIT 995, pp. 2, 19; MvO, KIT 999, p. 3; MvO, MMK 265, p. 64.

69 ARA, MvO, MMK 265, p. 36; MvO, KIT 997, Bijlage C; MvO, KIT 995, pp. 7, 17, 25; MvO, KIT 999, pp. 15, 17.

70 ARA, MR 1877 No. 595.

71 The Dutch, obviously aware of epidemics, carried out earlier and more extensive vaccination programs elsewhere in the upper Kapuas (e.g., ANRI No. 17, Algemeen Verslag, 1856; ANRI No. 138, Kort Verslag, March and May 1856), and some figures are recorded. For example, in 1863, twenty-nine children in the Upper Kapuas district and sixty-three in Sintang were vaccinated (ANRI No. 145, Kort Verslag, November 1863), and twenty-eight children in Selimbau in the following year (ANRI No. 146, Kort Verslag, January and June 1864). Comparable figures do not appear to exist for the Emperan area, although further archival work might uncover some.

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Illustrations

Map 1: The Upper Kapuas Borderlands

Map 2: The Emperan and Kapuas Lakes

Table 1: Emperan Iban Population Estimates, 1830-1933

Table 2: Embaloh (Leboyan) Population Estimates, 1822-1933

Table 3: Kantu' Population Estimates, 1822-1933

Table 1: Emperan Iban Population Estimates, 1830-1933.

Year	Est. Population	Other Estimates	Source
1830-40s	17,500 ^a	3,000-4,000 pintu ^b	von Kessel (1850:198)
1855	9,500	1,250 pintu & 68 longhouses	Niclou (1887:31) ^c
1860	6,000 ^a	1,200 pintu	Kater (1883:2)
1869	3,875 ^a	775 pintu	ANRI No. 150, Verslag over Januarij, 1869
early 1880s	3,000 ^a	600 pintu	Kater (1883:2)
1886	4,200 ^a	70 longhouses	ARA, MR 1886 no. 293
1893	3,500 ^a	700 pintu	Enthoven (1903:231)
1894	3,326	669 pintu ^d	ARA, Openbaar Verbaal, 6 June 1895 no. 12
1921	5,834 ^e	---	Bouman (1924:192)
1930	5,702 ^f	68 longhouses	ARA, MvO, KIT 995, p.12
1932	5,687 ^e	---	ARA, MvO, KIT 997, Bijlage D
1933	5,376 ^e	61 longhouses	ARA, MvO, KIT 999, Bijlage 1

^a Figure calculated using an average household size of 5 people or an average longhouse size of 12 households. These were chosen as conservative averages.

^b Pintu refers to the separate apartment for households in a longhouse.

^c There were also 440 Undup Iban living above Selimbau (see ANRI No. 17, Algemeen Verslag, 1856).

^d Enthoven (1903:229) counted 110 longhouses in 1894.

^e This figures explicitly includes the Undup Iban who are often not counted in earlier censuses.

^f Undup Iban are probably included here.

Table 2: Embaloh (Leboyan) Population Estimates, 1822-1933.

Year	Population Est.	Other Estimates	Source
1822	5,100 ^a	1,020 pintu, 12 kampong	Gronovius ^b
1840s	1,000 ^a	---	von Kessel (1850:185)
1847	2,925 ^a	—	ANRI No. 224, Aanteekeningen (van Lijnden), 1847
1850	3,000 ^a	---	ANRI No. 130, Verslag over de Kapoeas rijkjes, 1850
1879	805 ^c	161 pintu, 6 kampong	ARA, MR 1879 no. 771
1894	548	137 pintu	ARA, Openbaar Verbaal, 6 June 1895 no. 12
1930	429	7 kampong	ARA, MvO, KIT 995, p. 12
1932	417	---	ARA, MvO, KIT 997, Bijlage D
1933	433	6 kampong	ARA, MvO, KIT 999, Bijlage 1

^a Probably for both Embaloh and Leboyan River populations.

^b ARA, Aanteekeningen Betreffende Borneo (1802-1827), Algemeen Verslag der rijken Sintang, Sangouw, Sakadaw en Taijang enz., Assistent to the Commissioner of Borneo Gronovius, 7 November 1822.

^c Figure calculated using an average household size of 5 people.

Table 3: Kantu' Population Estimates, 1822-1933.

Year	Population Est.	Other Estimates	Location	Source
1822	6,000	1,000 pintu	Upper Kapuas	Gronovius ^a
1840s	2,500 ^b	500	Upper Kapuas	von Kessel (1850:175)
1840s	2,600	---	between Silat and Selimbau	van Lijnden and Groll (1851:583)
1856	300	—	around Suhaid	ANRI No. 17, Algemeen Verslag, 1856
	3,000	—	below Selimbau	
	1,200	—	above Selimbau	
	400	—	near Jongkong	
1894	1,048	185 pintu	below Semitau	OB 6 June 1895 no. 12
	625	91 pintu	around Putussibau	
1930	799	19 kampong	Semitau Subdistrict	ARA, MvO, KIT 995, p. 12
1932	871	---	Semitau Subdistrict	ARA, MvO, KIT 997, Bijlage D
	2,594	---	Upper Kapuas District	
1933	177	3 kampong	Batang Lupar Subdistrict	ARA, MvO, KIT 999, Bijlage 1
	647	13 kampong	Semitau Subdistrict	
	52	1 kampong	Silat Subdistrict	

^a ARA, Aantekeningen Betreffende Borneo (1802-1827), Algemeen Verslag der rijken Sintang, Sangouw, Sakadaw en Taijang enz., Assistent to the Commissioner of Borneo Gronovius, 7 November 1822.

^b Figure calculated using an average household size of 5 people.