



Research Article

WILDMEN IN MYANMAR: A COMPENDIUM OF PUBLISHED ACCOUNTS AND REVIEW OF THE EVIDENCE

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ABSTRACT. In contrast to other countries in Asia, little is known concerning the possible occurrence of undescribed Hominoidea (i.e., wildmen) in Myanmar (Burma). We here present six accounts from Myanmar describing wildmen or their sign published between 1910 and 1972; three of these reports antedate popularization of wildmen (e.g., yeti and sasquatch) in the global media. Most reports emanate from mountainous regions of northern Myanmar (primarily Kachin State) where wildmen appear to inhabit montane forests. Wildman tracks are described as superficially similar to human (*Homo sapiens*) footprints, and about the same size to almost twice the size of human tracks. Presumptive pressure ridges were described in one set of wildman tracks. Accounts suggest wildmen are bipedal, 120-245 cm in height, and covered in longish pale to orange-red hair with a head-neck ruff. Wildmen are said to utter distinctive vocalizations, emit strong odors, and sometimes behave aggressively towards humans. Published accounts of wildmen in Myanmar are largely based on narratives provided by indigenous informants. We found nothing to indicate informants were attempting to beguile investigators, and consider it unlikely that wildmen might be confused with other large mammals native to the region. Supernatural status for wildmen seems precluded by the lack of mythical elements in indigenous narratives. Collectively this evidence suggests that a scientifically undescribed bipedal primate may occur in the mountains of northern Myanmar and warrants further investigation. An interview survey of indigenous people in this region would go far towards establishing a basis for future field research.

KEY WORDS: Hominoidea, pressure ridge, tracks, traditional ecological knowledge, yeti, yeren, sasquatch

INTRODUCTION

Taxonomically undescribed Hominoidea (hereafter wildmen *sensu* Forth, 2008) have long been reported from various regions of Asia, including the Himalayas of India, Nepal, Bhutan, and Tibet (Shipton, 1952; Sanderson, 1961; Napier, 1973; McNeely et al., 1978), central China (Zhou, 1982; Meldrum and Guoxing, 2012), Mongolia (Shackley, 1983), Vietnam (McNeely and Wachtel, 1988; Forth, 2008), Thailand (McNeely and Wachtel,

1988), Peninsular Malaysia (Heuvelmans, 1965; Shuttleworth, 1965; Forth, 2008), Borneo (MacKinnon, 1974; McNeely and Wachtel, 1988), Sumatra (Heuvelmans, 1965; Freeman, 2011), and several Indonesian islands (Forth, 2008). In contrast to other countries within the region, remarkably little is known concerning the possible occurrence of wildmen in Myanmar (formerly Burma). Indeed, in a comprehensive review of wildman records from throughout Southeast Asia, Forth (2008) gives only a single account

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from Myanmar, that of Blanford (1891:9-10) who described a “tailless ape” standing approximately 1.2 m tall reputed to inhabit the forests around Mount Muleyit in the Tenasserim (now Tanintharyi) Region of southern Myanmar.

In an attempt to redress this deficiency, we here present additional published accounts of wildmen in Myanmar gleaned from a variety of hitherto over-looked and generally obscure sources. We present these accounts in chronological order of publication and place each within a specific geographical context. We then summarize and discuss biologically relevant details and synthesize this information into a composite overview of morphology and natural history. Lastly we compare our findings to what is known about wildmen in Asia (particularly the Himalayan ecoregion, but also central China) and North America.

METHODS

We conducted a wide-ranging search of peer-reviewed scientific sources, popular books and articles, travelogues, and gray literature to locate information on wildmen in Myanmar. Our search proceeded by what Murphy and Henderson (1997:2-3) describe as a “hit-and-miss method with a...snowballing effect,” i.e., one literature source often led to several additional sources. Much of our review focused on literature of the British Colonial Era, now largely forgotten, but nonetheless a rich source of natural history information (e.g., Thorbjarnarson et al., 2000, 2006). Although our search was primarily confined to English-language sources, in several instances, Burmese articles were translated by a native Burmese speaker who is fluent in English. Our review eventually included 150-200 sources; however, this effort should be considered incomplete because some references proved unobtainable and others were undoubtedly over-looked. We confined

our review to the area encompassed within the modern political boundaries of Myanmar (Fig. 1). We use “Myanmar” and “Burma” interchangeably throughout the text. Because many place names have been changed since publication of the original accounts, we provide both former and new names (when known) in the text. Finally, it should be noted that even today there is no official government gazetteer available and confusion surrounds the correct Anglicized spelling of many place names within Myanmar.

WILDMAN NARRATIVES

The earliest wildman narrative from Myanmar of which we are aware (excepting Blanford, 1891) is that of Wilson (1910:207). In a book primarily devoted to big game hunting in colonial Burma, Wilson writes that a “Mr. Bruce” (Deputy Conservator of Forests and deemed a “completely credible observer”) and his retinue of camp followers were attacked by a “big ape” while working in the forests along the upper Chindwin River of western Myanmar. Although hesitant to do so, Bruce shot and killed the large primate to “save human life”. Bruce then laid out the corpse, finding “it a little smaller than the orang-outang” [sic] (an adult orangutan [*Pongo pygmaeus*] measures 120-150 cm in length and weighs 35-100 kg, depending on sex, with males being larger than females; Francis, 2001). Local villagers professed great familiarity with the animal and according to Wilson, the vernacular name (not given) translates as “wild man of the woods”. [Authors note – “Orangutan” is a Malay word meaning “Man of the Forest” (Swindler, 1998). We are unaware of any Burmese language descriptor for wildmen that can be translated as “Man of the Forest”.]

Brief reference to an undescribed bipedal primate is made by Dawson (1912:11-12) writing in the *Burma Gazetteer*, a series of informational volumes published by the

British Colonial Administration describing the indigenous people, geography, wildlife, and natural resources in specific regions of the country. In a paragraph on wildlife of the Bhamo District, Dawson states that “Several varieties of monkeys abound in the foothills, including the gibbon and a mysterious creature called by the Burmans ‘*luwun*,’ which walks upright and is covered with a coarse tawny hair, and is possibly one of the larger species of ape. It is reported to have been met on the Tangte hills,” along the eastern bank of the Irrawaddy (now Ayeyarwady) River south of Bhamo.

Kaulback (1939: 172-173) provides the only first-person account of an encounter with wildmen in Myanmar that we have been able to locate. While traversing the mountainous northeastern frontier of Burma in search of the source of the Salween (now Thanlwin) River, Kaulback and four indigenous porters came upon a set of five trackways at 16,000 feet (4877 m). Kaulback describes the trackways as “running straight down the side of the valley at what seemed to be an incredible angle.” A thin layer of snow covered the tracks, and although “not very clear ... in size and everything else they looked exactly like the prints of a barefooted man.” Kaulback initially attributed the tracks to a group of bears (Ursidae) moving between mountain valleys, but his porters steadfastly maintained that no bears occurred in the area. Two porters instead suggested the tracks marked the passing of a group of snow leopards (*Panther uncia*), something Kaulback immediately discounts, knowing these large cats are solitary except when mating or with kittens. The other two porters claimed the tracks had been made by “mountain men – fearsome creatures who live high up in the snows.” The porters were unanimous in their agreement that such creatures existed, and the oldest (45 years old) had reportedly encountered a “mountain man” while hunting wild ungulates in the same area some years previously. The

older porter described the creature as walking bipedally “like a man, white-skinned, naked, and with long fair hair on the shoulders, arms, and head; running at great speed over the snow, and carrying a club.” In the end, unsure what to make of the tracks and seeming to dismiss the porters account out-of-hand, Kaulback concludes the tracks could only have been left by bears. But seemingly uncomfortable with his conclusion, Kaulback states that he would like to return in the future “to find out definitely what these beasts could have been”.

Mention of an “unidentified ape” is also made in the *Burma Wildlife Survey*, an inventory commissioned by the International Union for Conservation of Nature and Natural Resources (IUCN) and American Committee for International Wild Life Protection to determine the status of wildlife and conservation in post-colonial Myanmar (Milton and Estes, 1963: 56). The two authors conducted field surveys in many areas of Myanmar (1959-60), including mountainous regions in the northern part of the country. According to Milton and Estes, indigenous hunters in northern Burma maintained “there is another species of ape [besides]...the gibbon, with long reddish or pale hair, found at high altitudes”. Hunters described the call of this primate as “quite different from the gibbon’s [sic] and more human”. San Hta Zin, a member of parliament from Kachin State told the authors that while traversing Chaukan Pass (high mountain pass between Myanmar and India) “many years ago”, he found “manlike tracks” near three alpine pools and later heard a “strange cry”. Lisu tribesmen, an ethnic group renowned for their hunting skills (Diran, 2001), showed the authors a mountain near Putao (formerly Fort Hertz) reputedly inhabited by wildmen. The Lisu claimed to hunt these primates for food, and a resident of Putao reportedly “killed one some years ago”. The Rawangs (another indigenous group in northern Myanmar) were said to believe that

"to look upon the ape will cause sickness or death". Milton and Estes offered a substantial reward to anyone who could procure a specimen, but when none was forthcoming concluded "it is hard to decide whether to take all of these reports seriously or not from the available evidence".

Perhaps the most comprehensive account of wildmen in Myanmar is given in a newspaper article published in the English-language newspaper, *The Working People's Daily* by Colonel Hla Aung (1969), a career forest officer and well-known zoologist (Khin Ma Ma Thwin et al., 2011). This article was apparently the second that Hla Aung authored on wildmen in Myanmar as part a series on primates published by the newspaper; we have been unable to locate the first. In the article, Hla Aung describes four different encounters with wildmen in the mountains of northern Myanmar. It is unclear if the persons involved directly related their experiences to Hla Aung, or as we consider more likely, he gleaned most of these accounts from secondary sources. The first encounter Hla Aung describes occurred in the area of Urong Thara Pass (3512 m) when a wildman charged an indigenous hunter with "fangs bared and hands raised." The hunter shot "many poisoned arrows" into the wildman, which reeled back and stumbled downhill. Apparently traumatized by the experience, the indigenous hunter reportedly died of "fright" three days later. The second incident occurred in mid-May 1942 during the construction of a military road from Putao to Chaukan Pass in the opening days of World War II. At 2700 m on a spur of the Chaukan Range workers drawing water from an alpine pond came upon fresh tracks described as "very much human, but almost double the size". Strange vocalizations (described as "Oo-hu-hu") were heard by the party when camped that night in the same area. It is possible this incident is a variant of a similar account given earlier by Milton and Estes (1963).

A third incident reported by Hla Aung is in our opinion, among the most interesting of wildman records from Myanmar. The incident occurred during November 1946 when a party of government officials was touring the hinterlands beyond Putao. When encamped near Konglu (1828 m; a village five days walk from Putao) on a moonless night, their pack animals took fright and village dogs began barking at the approach of a wild animal. Thinking a tiger (*Panthera tigris*) was about, the party mounted a vigil and although unable to see anything, was "assailed" by a "very strong obnoxious odor" shortly thereafter. On the following day the party encountered tracks "of some mysterious creature almost double the size of a man's footprint" along a trail through the mountains. The tracks continued up the footpath and at an elevation of 2430 m veered from the trail and disappeared into dense jungle. Because the footpath was muddy, the tracks were "clearly visible" and according to Hla Aung, the "*arch of the foot below the instep ... was apparently two inches higher than the level of the heel and toe*" [italics added].

The fourth wildman encounter described by Hla Aung occurred in January 1956 when a group of hill tribesmen were traveling from Putao to a Christian revival meeting near Hkrang Hku. While traversing the snowbound Ahku Htara Pass (2743 m), the party inadvertently began following a lengthy trackway through deep snow thinking it had been made by fellow pilgrims. It was only when the trackway began to descend a steep rocky slope did one of the party members suspect the tracks they were following had been left by a wildman rather than a person. The tracks were said to be about the same size as those of a man.

The most recently published wildman account is that of Morse (1974:132-134), writing about his experiences as a Christian missionary living among the Kachin of northern Myanmar during the 1950s and

1960s. Morse told of meeting a Lisu friend in 1968 who described an encounter with a wildman that occurred "about a week ago" when he was tracking a musk deer (*Moschus* sp.) and came upon manlike footprints. According to the hunter, it appeared as though both he and the track maker were in pursuit of the same quarry. The hunter described the tracks as "something like those of a big monkey ... twelve to fourteen inches long [ca. 30-36 cm] and shaped like a man's foot, only narrower." Intrigued, the hunter began following the tracks and after four or five miles came upon a wildman standing 40-50 feet [12-15 m] away watching as he approached. The wildman was "standing on two legs, ... about seven or eight feet tall [213-243 cm], and did not look the least bit human ... being covered with reddish brown fur with a sort of mane of longer fur on its head, which looked bigger than a monkey's". The hunter found it amusing when the wildman began imitating his movements – "...when I raised my hand, it raised its hand. When I brought up my crossbow to take aim, it pretended to raise a bow and do likewise". However, this "game came to a sudden end" when the hunter unleashed a poisoned arrow, which struck the wildman in the chest, but dropped out after failing to penetrate the sternum. At this, the wildman turned and fled and the hunter immediately ran to a nearby village, and returned with a friend to assist in tracking the wounded animal. However, it soon became obvious the wildman had not received a lethal dose of arrow poison and the search was abandoned as darkness fell. Morse gave the story credence, adding that his brother (LaVerne Morse, also a missionary) had encountered a similar set of wildman tracks in the mountains east of Putao "around 1955". Morse calls the tracks "strangely human" and concludes "from all reports ... the yeti does exist, but in small numbers and in regions so inhospitable that human beings are seldom, if ever, on hand to glimpse them."

DISCUSSION

Our literature review found six accounts describing wildmen or their sign in Myanmar published between 1910 and 1974, complementing the earlier report of Blanford (1891). Although our review was wide-ranging and included a variety of sources, it was not exhaustive and other wildman reports from Myanmar undoubtedly remain to be uncovered. Notably, four accounts (57%) (Blanford, 1891; Wilson, 1910; Dawson, 1912; Kaulback, 1939) significantly predate popularization of the yeti during the 1950s (Shipton, 1952; Izzard, 1955; Stonor, 1955) and later newspaper reports from northern California, USA that brought sasquatch to the attention of a global audience (Meldrum, 2006). Furthermore, at least two encounters with wildmen described by Hla Aung (1969) occurred during the 1940s, well before knowledge of cryptic hominoids had been widely disseminated. The timing of these publications is of interest because critics frequently contend that wildman narratives are merely an outgrowth of sensationalized media coverage of yeti and sasquatch, all the while ignoring a considerable body of evidence antedating the popularization of these animals (Meldrum, 2006; Bindernagel, 2010).

The paucity of more recent (1980-2015) wildman reports is unsurprising given that Myanmar, long isolated under military rule and considered among the most reclusive nations in the world (Steinberg, 2001) was 1) for the most part closed to foreign investigators from the mid-1960s through the late 1990s, 2) collaboration between Myanmar and foreign researchers was actively discouraged by government policy during this period, and 3) funding was unavailable for government-sponsored domestic scientific research by Myanmar academics. Even now (2015), some areas within Myanmar remain closed to scientific research owing to security

concerns and chronic, low-intensity military conflicts. When researchers have taken to the field the results are impressive with the discovery of new species (Rabinowitz et al., 1999; Rappole et al., 2005; Geissman et al., 2011; Dever et al., 2012), rediscovery of species believed extinct (Platt et al., 2005; Kuchling et al., 2006; Rheindt et al., 2014), and significant range extensions (Rabinowitz and Saw Tun Khaing, 1998; S. Platt et al., 2014), including records of many species not previously thought to occur in Myanmar (King et al., 2001; K. Platt et al., 2014). Recently described and "rediscovered" taxa in Myanmar range in size from small amphibians (Dever et al., 2012) and birds (Rappole et al., 2005; Rheindt et al., 2014) to larger mammals, including a cervid (Rabinowitz et al., 1999) and primate (Geissman et al., 2011). Taken together, this body of research indicates the biodiversity of Myanmar remains incompletely known with much yet to be discovered.

With two exceptions (Blanford, 1891; Wilson, 1910), reports of Burmese wildmen emanate from Kachin State in northernmost Myanmar (Dawson, 1912; Kaulback, 1939; Milton and Estes, 1963; Hla Aung, 1969; Morse, 1974). Notably, northeastern Kachin State is also where the recently described Burmese snub-nosed monkey (*Rhinopithecus strykeri*) was discovered (Geissman et al., 2011) suggesting this area is biotically underexplored and might host other unknown primates. Kachin State (Fig. 1) is bordered by India to the west and China in the north and east, and considered among the most remote and least known regions of Southeast Asia (Rabinowitz, 2001; Khin Ma Ma Thwin et al., 2011). Much of Kachin State is encompassed within the Himalayan Ecoregion and consists of extremely rugged mountainous terrain (maximum elevation = 5710 m) characterized by a diverse matrix of plant communities that correspond to gradients in elevation, slope, and aspect (Rabinowitz et al., 1999; Rabinowitz, 2001; Rao et al., 2011).

Kingdon-Ward (1954) classified the plant communities of Kachin State along an elevation gradient as lowland forest (to 700 m), subtropical hill forest (700-1700 m), warm temperate rainforest (1700-2700 m), cold temperate rainforest (2700-3000 m), *Rhododendron*-silver fir (*Abies alba*) forest (3000-3700 m), and subalpine scrub (3700-4000 m). The upper Chindwin River (by convention upstream from Homalin), where a wildman was reportedly shot by a colonial forest officer (Wilson, 1910) is in Sagaing Division, which together with Shan State forms the southern boundary of Kachin State. Sagaing Division encompasses much of the Naga Hills, a highland region (maximum elevation = 3825 m) contiguous with the mountains of Kachin State.

Unfortunately, little habitat-specific information accompanies most wildman narratives from Myanmar. Elevations given in descriptions of trackways and encounters range from 1800 to 4800 m (Kaulback, 1939; Hla Aung, 1969; Morse, 1974) strongly suggesting that if such creatures exist, Burmese wildmen inhabit upper montane forests (warm temperate rainforest, cold temperate rainforest, and *Rhododendron*-silver fir forest of Kingdon-Ward, 1954). McNeely et al. (1978) likewise concluded that yeti are largely restricted to the montane forest zone (2800-4500 m) in the Himalayas, and attribute tracks found in high-elevation snowfields and glaciers (e.g., Shipton, 1952; Cronin, 1979) to animals moving between forested valleys across the intervening high mountain passes. McNeely et al. (1978) considered the diversity of plant and animal resources in montane forest habitats sufficiently ample to support large primates. Indeed, snub-nosed monkeys (*Rhinopithecus* spp.) inhabiting high-elevation forests have evolved physiological traits allowing them to consume a diet of such hard-to-digest foods as leaves, bark, lichens, and *Pinus* seeds (Zhou et al., 2014). In Myanmar, montane forests and other high elevation habitats are above the

upper elevational limits of shifting cultivation (approximately 1500 m, but often lower; Platt et al., 2013), and rarely visited by indigenous people except to hunt, collect non-timber forest resources (particularly medicinal plants), and graze mithun (*Bos frontalis*) and mithun-yak hybrids (*B. frontalis* × *grunniens*) (Robert Tizard, Wildlife Conservation Society-Myanmar Program, pers. comm.). Inaccessibility of montane habitats coupled with the reported nocturnal habits of wildmen (Hla Aung, 1969) make encounters with humans (*Homo sapiens*) infrequent and might contribute to perceptions of rarity by indigenous people (Milton and Estes, 1963; Morse, 1974).

Wildmen tracks are mentioned in three of the published accounts from Myanmar (Kaulback, 1939; Hla Aung, 1969; Morse, 1974). Tracks represent an important body of scientific data that can reveal a great deal about the natural history of an organism to an experienced observer (Stander et al., 1997) and provide a degree of objectivity not always attainable with other types of observational data (Meldrum, 2006). Wildman tracks from Myanmar are described as being superficially similar to human footprints (presumably pentadactyl), and approximately the same size (Kaulback, 1939) to almost twice the size of human tracks (Hla Aung, 1969). Assuming the accounts are accurate (see below), such variability is to be expected in physical attributes of any natural population (Fahrenbach, 1998). Only Morse (1974) provides a quantitative estimate of track length; at 14-16 inches (ca. 35-40 cm) these tracks were larger than the footprints of most adult human males and similar in size to purported tracks of the North American sasquatch (Fahrenbach, 1998; Meldrum, 2004, 2006) and Chinese yeren (Meldrum and Guoxing, 2012). Morse (1974) also stated that wildman tracks were narrower than human footprints, an attribute not mentioned in other accounts. Nor do any accounts from Myanmar

mention a divergent hallux (great toe) as often seen in yeti tracks from the Himalayas (Meldrum, 2006). To our knowledge, plaster casts or photographs of wildman tracks have never been made in Myanmar, an important consideration when evaluating track evidence because the active constructional nature of the human mind makes it near-certain that recollections will change unless recorded in hard form (Forman and Russell, 1983; Bates and Byrne, 2007). Recollections are even less reliable when people are confronted by novel or threatening experiences (e.g., encountering large tracks of a potentially aggressive and dangerous animal).

Intriguingly, Hla Aung (1969) described what seem to be pressure ridges ("...arch of the foot below the instep...was apparently two inches higher than the level of the heel and toe") in wildman tracks left along a muddy footpath. Pressure ridges are dynamic features of tracks formed when a relatively plastic substrate (e.g., mud) is forced upwards proximal to the midfoot as the animal moves forward (Meldrum, 2004, 2006). Pressure ridges are a consequence of the midtarsal flexibility of the hominoid foot, which unlike that of humans lacks a fixed longitudinal arch and specialized weight-bearing ball; weight is instead distributed more evenly across the plantar surface (Meldrum, 2004, 2006). Midfoot or midtarsal pressure ridges are considered a distinctive signature of North American sasquatch tracks (Meldrum, 2004, 2007) and were recently noted in tracks attributed to the Chinese yeren (Meldrum and Guoxing, 2012), but to our knowledge have not been previously described in wildman tracks from the Himalayan region. According to Meldrum and Guoxing (2012), the presence of midfoot pressure ridges in hominoid tracks from North America and western China provides independent corroboration of an undescribed bipedal hominoid with a circum-Pacific distribution. Confirmation of similar pressure ridges in hominoid tracks from

Myanmar would obviously lend further support to this hypothesis.

Although accounts vary, the composite picture that emerges from physical descriptions of Burmese wildmen is one of a bipedal hominoid standing 120-245 cm in height, covered in longish pale-tawny-orange-red hair with a prominent head-neck ruff of longer hair. This morphotype is reflected in the Burmese vernacular name *luwun* (Dawson, 1912), which translates literally as "Man Bear" suggesting a hirsute, bipedal non-human primate. For the most part, descriptions of Burmese wildmen are consistent with accounts of the yeti (Sanderson, 1961; Napier, 1973), and display considerable resemblance to the Chinese yeren (Zhou, 1982; Meldrum and Guoxing, 2012). Burmese wildmen are also said to emit a pungent, noxious body odor (Hla Aung, 1969), utter distinctive vocalizations (Milton and Estes, 1963; Hla Aung, 1969), and on occasion exhibit aggressive behavior directed at humans (Wilson, 1910; Kaulback, 1939; Hla Aung, 1969), all of which are common elements of wildman reports from the Himalayas (Izzard, 1955; Stonor, 1955; Sanderson, 1961; Napier, 1973) and North America (Greenwell et al., 1999; Meldrum, 2006). Bindernagel (1998) maintains that many behaviors attributed to North American sasquatch (and by extension to Asian hominoids) have also been observed in field studies of great apes. Moreover, anecdotal observations and empirical studies by primatologists suggest male orangutans and gorillas (*Gorilla gorilla*) are capable of emitting pungent odors when in a state of excitement or agitation (Meldrum, 2006; Klailova and Lee, 2014).

As by now obvious, wildman reports from Myanmar are overwhelmingly based on the traditional ecological knowledge (TEK; also known as "folk knowledge") of indigenous informants. Kaulback (1939) appears to be the only authority with firsthand experience of wildmen and even his narrative draws heavily

on input from his indigenous porters. TEK is defined as a cumulative body of knowledge concerning the relationship of organisms with one another and their environment, empirically acquired, and passed down by oral tradition (Berkes et al., 2000; Huntington, 2000). For a variety of reasons science has been slow to embrace TEK as a research methodology (Huntington 2000; Nadasdy, 2003), and folk accounts of cryptic hominoids are usually dismissed as inaccurate exaggerations of credulous peoples, deliberate attempts to dupe investigators, or descriptions of imaginary, non-empirical beings (Meldrum, 2006; Forth, 2012). In short, rather than serving as a starting point for serious enquiry, ethnographic evidence of hominoids is generally ignored and often trivialized by natural scientists (Forth, 2012).

That said, we find nothing in Burmese wildman narratives to suggest indigenous informants were deliberately attempting to beguile investigators. We also consider it implausible that wildmen would be confused with bears (*Ursus thibetanus* and *U. malayanus*), langurs (*Trachypithecus* spp.) or macaques (*Macaca* spp.) by indigenous people who regularly hunt these taxa for subsistence and commercial purposes (Rabinowitz et al., 1998; Rao et al., 2005). Furthermore, while acknowledging that ethnographic data should never be uncritically accepted by natural scientists, we see no *a priori* reason to dismiss folk accounts simply because indigenous people lack scientific training. Our view is consistent with a growing body of literature indicating that indigenous people can be reliable observers of the natural world and make significant contributions to science and natural resource management (Gilchrist et al., 2005; Anadón et al., 2008; Davy et al., 2011; Meijaard et al., 2011; Nabhan and Martinez, 2012; Cano and Telleria 2013). Neither are we ready to ascribe supernatural status to the Burmese wildman given that indigenous accounts contain

remarkably few mythical elements. Moreover, the fact that wildman reports are for the most part centered on a specific region with distinct ecological boundaries argues for the existence of a real animal rather than a cultural construct inhabiting only the imagination of informants. We contend that a mythical animal, not being constrained by ecological or biogeographical factors, would be more widely reported within Myanmar. On a continuum of scientific credibility with imaginary beings at one end and empirical referents (i.e., species recognized by modern science) at the other (Forth, 2012), the Burmese wildman would seem to fall somewhere just short of the latter.

In contrast to North America, where critics argue the dearth of fossil evidence precludes the existence of an undescribed primate such as sasquatch (Meldrum, 2006), primates including hominoids are well-represented in the fossil record of mainland Southeast Asia and adjacent southern China (Kelley, 2002; Chaimanee et al., 2008; Jaeger et al., 2011; Harrison et al., 2014; Zhang et al., 2014). Of particular relevance to the reports of wildmen in Myanmar are *Gigantopithecus blacki*, which persisted until the Middle Pleistocene in southern China and possibly elsewhere (Zhao and Zhang, 2013) and several species of *Pongo*, one (*P. devosi*) of which survived into the Holocene on mainland Southeast Asia (Delgado and van Schaik, 2000; Harrison et al., 2014). Undiscovered relict populations of *Gigantopithecus blacki* in North America and Asia have been proposed to explain sasquatch and yeti, respectively (reviewed by Meldrum, 2006), and some elements of Burmese wildman narratives (e.g., large body size and hirsuteness) are consistent with physical reconstructions of this taxa by Ciochon et al. (1990). Conversely, the wildman described by Blanford (1891) bears a notable resemblance

to *Pongo* (e.g., tailless with long, deep ferruginous hair, body size consistent with female *P. pygmaeus*).

In conclusion, the wildman narratives we review here together with the rich fossil record suggest that a bipedal primate as yet unknown to science may inhabit high-elevation forests in the mountains of northern Myanmar. Although funding agencies have so far proved reluctant to support research on cryptic hominoids, scientists working in the region should be alert to the possibility of collecting additional evidence in the form of casts or photographs of tracks, hair and fecal samples, or even physical remains obtained from hunters. Most importantly, indigenous peoples should be solicited for additional information about wildmen. An in-depth interview survey (e.g., Meijaard et al., 2011) would go far towards establishing a basis for future field research and perhaps provide tentative answers to questions concerning the natural history of undescribed hominoids in Myanmar.

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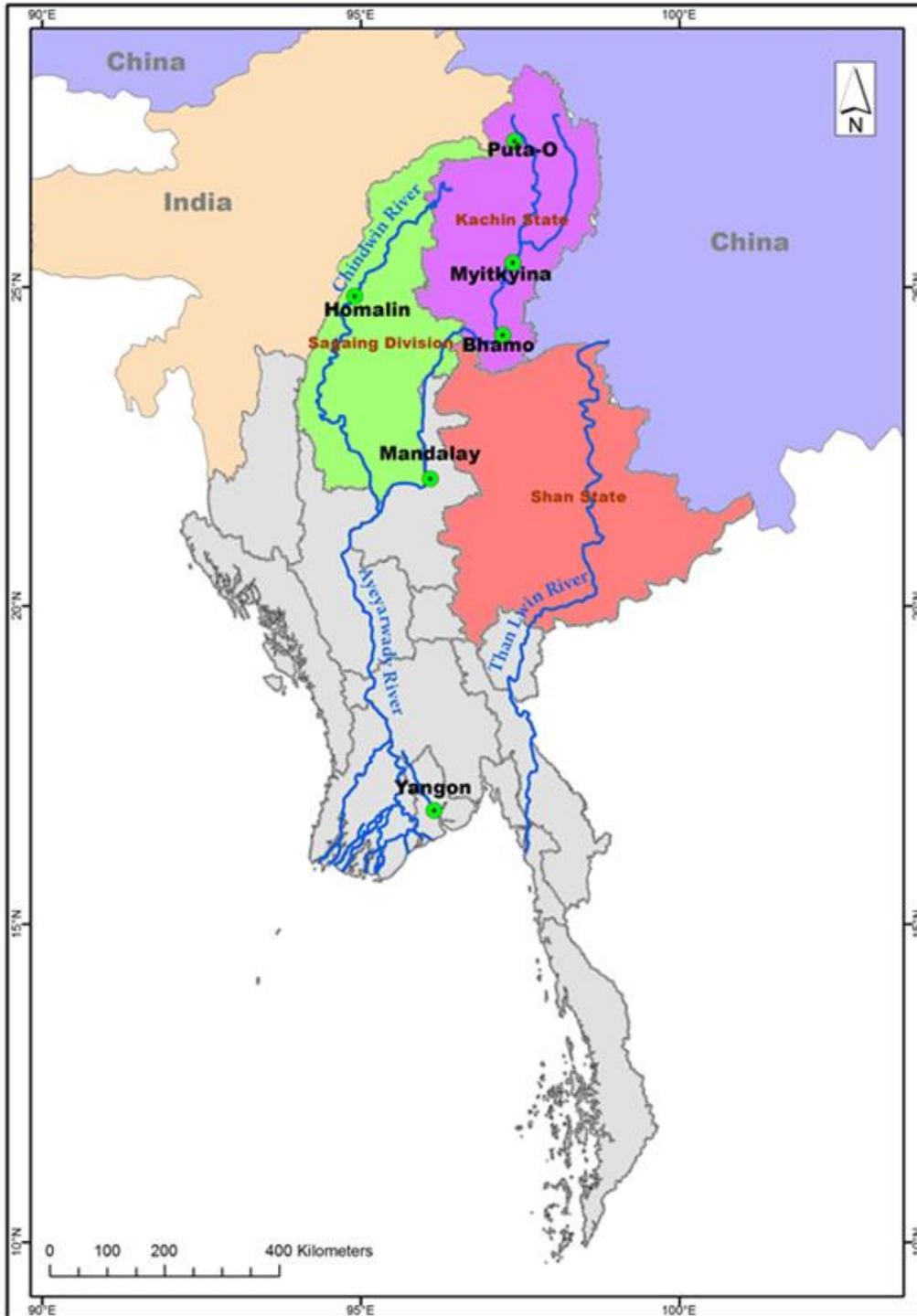


Figure 1. Map of Myanmar showing political boundaries of Kachin State, Shan State, and Sagaing Division, major rivers, principal urban centers, and localities mentioned in text. Place names in accordance with current usage.