

If you go with science, the tribes in Andaman Islands are the first Indians!!!

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Abstract

Genetic studies employing Y-chromosome and mitochondrial genome analysis have provided significant information on genealogy, origin and migratory routes of various human populations in India. The genealogy of the tribes of Andaman and Nicobar Islands is particularly interesting as these tribal populations continue to remain almost isolated from the rest of the world as it had been for the past several thousands of years. The present paper is an attempt to interpret the origin, genetic affinities and demography of these tribes. Andaman Islands are home to four major groups of tribes namely Great Andamanese, Onge, Jarawa and Sentinelese. They are generally referred to as Negrito tribes and believed to have arrived from Africa, approximately 60000 years back. Nicobar Islands are inhabited by two mongoloid tribes namely Shom Pen and Nicobarese tribes. The migratory routes of Mongoloid tribes can be traced back to Malay- Burma regions.

Keywords: Human genealogy, Great Andamanese, Onge, Jarawa and Sentinelese, Shom Pen, Nicobarese

Introduction

Exploring the roots of ancient tribes has been tenaciously neglected, if not ignored, in the contemporary Indian culturescape, though we always search for 'avatars' of our own creation. The recent killing of John Chau, a missionary who illegally trespassed on a secluded island to preach to the locals about Christianity, has created a lot of discussion for and against the tribes, including the human cry for bringing tribes to justice! Who cares about the human rights and right of tribes to live on their land? For the tribes of Andaman and Nicobar Islands, it is the real story of our own (human) migration to explore the new pastures across the world, often driven by the innate ability to survive on changing environment!

Before we argue for or against the tribes in Andamans, who are also Indians, probably without Aadhar card and passport, it is always better to know their history told by science (especially in the light of recent developments in genomics) and look at the history of origin of extant humans of Indian

mainland! Yet we continue to discuss in India, including within the 'reformed' and 'educated' Kerala society, the hegemony of caste system and social values created through the feudal system.

Going with genetics

Going with genetics, there are 4,635 well-defined populations in India, including 532 tribes (7.76%), and 72 primitive tribes (36 hunters and gatherers). When humans first ventured out of Africa as *Homo sapiens* around 60,000 years ago, they have left genetic footprints through their pathways of migration. The migratory routes of ancient human beings are now relatively well drawn, through the mapping of human genome (a genome is an organism's complete set of its genetic material, Deoxyribonucleic acid or DNA, including all of its genes) or more precisely the genetic markers in DNA (Y chromosome and mitochondrial DNA).

The migration eventually helped the descendants of a small group of Africans to occupy even the farthest reaches of the Earth. Though the origin of modern man has happened in Africa and they have

spent most of their life on earth in that piece of land, their journey outside Africa almost 60,000 - 70,000 years ago, might have been triggered by major climatic shifts – may be a sudden cooling in the Earth's climate during the last Ice Age. There is also an argument that the East African mega droughts during the time when the water volume of the lake Malawi was reduced by at least 95% could have been the reason for their migration out of Africa.

The earliest people to colonize the Eurasian landmass likely did so across the Bab-al-Mandab Strait separating present-day Yemen from Djibouti. These early beachcombers expanded rapidly along the coast to India and reached Southeast Asia and Australia by 50,000 years ago (Figure 1). The first great foray of our species beyond Africa had led us all the way across the globe.

small percentage (between 0 to 2 percent) of Neanderthal ancestry, even though those ancient species have long since gone extinct.

The genomics research suggested that mainland India's current population largely descended from Indo-European or Aryans (North India- Ancestral North Indians), Dravidians (South India-Ancestral South Indians) groups, Tibeto-Burman (North-East India) and Austro-Asiatic (fragmented in East and Central India) groups. The 'Ancestral North Indians' (ANI), is genetically close to Middle Easterners, Central Asians, and Europeans, whereas the other, the 'Ancestral South Indians' (ASI), is as distinct from ANI and East Asians as they are from each other.^[1] As far as the tribes of Andaman and Nicobar Islands are concerned, the Andaman tribes are Negrito (providing evidence for the *Homo sapiens* migration from East Africa some 60,000 years ago) and the Nicobar tribes are Mongoloid.^[2]



Figure 1: Map showing colonization

In recent years, scientists have determined that modern humans are not the only ancestors represented in our DNA. During your ancestors' journey from our original African homeland, they might have mixed with ancient hominids who lived tens and even hundreds of thousands of years ago - our human cousins like the Neanderthals in Europe and Asia. This means that you may find in you a

The Jarawas and the Onges in Andamans share their ancestry with present-day Pacific islanders, implying a distinct ancestral population for these Andaman and Nicobar tribes. The studies further showed that two tribes in mainland India, Kurumba from Kerala and Rajbanshi from West Bengal were found to share some mutations (as indicated by DNA base sequence) with those of Andaman tribes.

These studies were done based on the Y chromosome which is inherited paternally and sequencing the complete mitochondrial genome (DNA in mitochondria) which is inherited maternally. The scientists compared the mitochondrial DNA sequences with that of the world population to arrive at conclusions. The studies proved the southern coastal route migration of African tribes to India. Earlier belief was that the tribes migrated to India through the northern route via Middle East, Europe, Southeast Asia and Australia.^[3]

According to a recent study by an Indo-Spanish group, the Onges and Jarawas were believed to have descended from an unknown hominid (ancestor of all great apes and human) that went extinct. However, there is no fossil record yet to prove this argument. In short, the tribes living in the Andaman Islands have been recognized as belonging to the Negrito stock with dark copper colour complexion and woolly short hair growing in tufts. They are however completely distinct from the African tribes. The Nicobar Islands, on the other hand, are the abode of a race that have Mongolian characteristics and a mode of life entirely different from that of the Andamanese.

Gene exchange was widespread among the four ancestral groups of the present-day Indians, though the caste system later came into existence in India forced the population to live in relatively isolated social groups. This was enhanced through endogamy (marriages limited within the caste system). With negligible proportion of marriages taking place between individuals belonging to different social groups, the four populations became genetically distinct.

A new paper authored by 92 scientists from around the globe shows that some sort of migration did indeed take place into India and that the Indus Valley civilisation is key to all South Asian populations.^[4] Further, there are three potential groupings that, when mixed in various combinations, could be responsible for the creation of the Ancestral North Indian and Ancestral South Indian Populations.

- The first are South Asian hunter-gatherers, described in this study as Ancient Ancestral South Indians or AASI, the oldest people of the subcontinent, related to modern-day Andaman islanders.

- Then there are Iranian agriculturists, who were known to have come to the subcontinent, possibly bringing certain forms of cultivation of wheat and barley with them.
- And finally, there are the Steppe pastoralists, the inhabitants of the vast Central Asian grasslands to the north of Afghanistan, who were previously known as 'Aryans.'

There is another, important population with South Asian connections that sits somewhere amidst these three: the Indus Valley population. The mixing of Iranian agriculturists and South Asian hunter-gatherers first created the Indus Valley population. Then around the 2nd millennium BCE, Steppe pastoralists moved south towards the subcontinent encountering the Indus Valley population in a manner that was likely to have caused some amount of upheaval.

What appears to have happened afterwards is that some of the Indus Valley population moved further south, mixing more with South Asian hunter-gatherers to create the Ancestral South Indian population. Meanwhile, in the north, the Steppe pastoralists got mixed with the Indus Valley population to create the Ancestral North Indian grouping. Most subsequent South Asian populations were the result of further mixing between Ancestral North Indians and Ancestral South Indians.

Tribes in Andaman and Nicobar Islands

The Andaman and Nicobar Islands are presently home to six major tribal groups - the Shompen and Nicobarese in the Nicobar Islands and the Jarawa, Onge, Great Andamanese and Sentinelese in the Andaman Islands. Andamanese are the descendants of the first modern human migrated out of Africa through Southern Coastal route via India about 65,000 – 70,000 years ago; whereas the Nicobarese are the recent migrants from the Southeast Asia about 18,000 years ago.^[5]

The tribes of Andaman belong to the Negrito ethnicity, significant populations of which are spread across the Pacific Ocean in Indonesia, Papua New Guinea, and Solomon Islands to name a few. They are physically characterised by short stature, dark skin and peppercorn hair, largely resembling the African Pygmies.

Table 1. The tribe-wise population of Scheduled Tribes in Andaman and Nicobar Islands as per Census 2011

<i>Tribes</i>	<i>Population</i>
Andamanese, Chariar, Chari, Kora, Tabo, Bo, Yere, Kede, Bea, Balawa, Bojigiyab, Juwai, Kol	44
Jarawas	380
Nicobarese	27168
Onges	101
Sentinelese	15
Shom Pens	229

The Great Andamanese Tribe

Thought to be the descendants of the Africans, they are known to have migrated out of Africa around 60,000 years ago. They are pygmies, divided into ten major tribes. Among the four tribes of the Andaman Islands, the Andamanese paid the heaviest toll of their lives on account of their contact with the early settlers of these islands. In 1858, their number was conservatively estimated near about 3500. In 1901 their strength dropped to 625. They are now limited to a population of around 44. Much of their diet includes Indian food although they still go fishing, hunting, and food gathering.^[6,7] They also have farms now to practice agriculture and a little bit of animal husbandry. They are now settled and receive government support.

Jarawa Tribe

The Jarawa tribe is now confined to the forested areas along the west coast of South and Middle Andamans, which is known as the “Jarawa Reserve”. Jarawas were the earliest to be contacted by the colonizers and were reportedly the worst hit during the Japanese occupation as the Japanese bombed the Jarawa territory in their effort to drive away the British, since they considered the Jarawa area to be a hiding place for the British army. Jarawa have stayed totally out of contact of the outside world till 1998. They are believed to be the ascendants of the now extinct Jangil tribe (Figure 2).



Figure 2. Jarawaa tribe

Onge Tribe

They are presently concentrated in settlement namely the Dugong Creek in the Little Andaman Island. Being semi-nomadic, they hunted for food instead of farming. The Onges also suffered grievously at the hands of the colonisers and early settlers. After the tsunami, only 101 of the Onge individuals are left who have taken shelter on the highland of the island (Figure 3).



Figure 3. Onge tribe

Sentinelese Tribe

The term Sentinelese is derived from the name of the island they inhabit, viz. North Sentinel, which is located at a distance of 102 kms from Port Blair. The Sentinelese are believed to be an off-shoot of the Onge - Jarawa tribe but because they have remained isolated from other tribes for years, they have grown up as a distinct ethnic group. The Sentinelese tribe is the most untouched tribe of Andaman Islands. They live on the North Sentinel Island, isolated completely from the other tribes. They are still leading the life of hunter and gatherer as they hunt and gather food, together with fishing. They don't, however, know about how to produce fire and cook food. They are very hostile towards outsiders (Figure 4).



Figure 4. Sentinelese tribe

The Nicobarese Tribe

The Nicobarese tribe comprises of the dominant tribes of the Nicobar Islands. They alone have had a natural growth of population and have made headway on the road to civilization. They live in elevated huts having dome-shaped roofs and use ladders to enter the house and to get down from there. These ladders are pulled up at night

Shom Pen Tribe

The Shom Pen is mongoloid hunting-gatherer community of the Great Nicobar Islands in Andaman and Nicobar Islands. It is the first tribe that had arrived at the Nicobar Islands. After the tsunami, however, their population decreased considerably. They are the hunting-gathering type of tribe. They use tools like the bows and arrows, spears, fire drills and hatchet are the main kind of tools used by the Shompen. They hunt and gather food. They also depend on farming where they cultivate yams, roots, vegetables as well as tobacco.

Based on information received from the Directorate of Tribal Welfare, Andaman and Nicobar (A&N) Administration, Nicobarese follow Islam and Christianity.

The earliest archaeological evidence that documents the ancestry of tribes is only a few thousands of years old. However, genetic and cultural studies suggest that the indigenous Andamanese people may have been isolated from other populations during the Middle Paleolithic, which ended 30,000 years ago. Since that time, the Andamanese have diversified into linguistically and culturally distinct, territorial groups.

What is happening to the tribals?

The inhabitants of these islands formed one of the most isolated groups of the world, until the British colonisation during the 19th and 20th century. The subsequent contact and settlement had devastating consequences on the local tribal population and radically altered the island's ethnicity.

The Andaman Trunk Road or National Highway 223 is a 360-kilometre road, running south to north covering multiple towns and villages. The road passes through the Jarawa Reserve and the activists and anthropologists raised their concerns against the road construction.^[8] The Jarawas started making friendly contact with the modern society since 1998, while the government continue to implement restrictions in contacting them due to their low immunity and fear of their exploitation. The Jarawa habitat is protected as a tribal reserve notified under the Andaman and Nicobar Protection of Aboriginal Tribes Regulation (ANPATR) of 1956. Despite an interim order from the Supreme Court, prohibiting the road in 2002, it has not been closed. The apex court in 2012, prohibited tourism and commercial activities within a 5 km buffer area of the Jarawa reserve.^[9]

Of late, there is flourishing promotion of 'tribal' tourism, as the tourists wait in long queues to visit Jarawas and click photos with them! According to Survival International, a global tribal rights advocacy group, unauthorised 'human safaris' are on the increase in the island and tourists often throw bananas and biscuits to the tribal people at the roadside, as they would do to animals in a safari park! Further, the 'modern' society is to be blamed for enticing them to bad habits of alcohol and marijuana.

Contact with the outsiders brought diseases to which the locals had no immunity, leading up to the complete extinction of the Jangil or Rutland Jarawa Tribe. Simultaneously, the rampant use of alcohol and opium in the early days was seen as a means of disrupting and removing the locals of the islands and caused friction between the British and the tribals, which ultimately saw the tribes being driven out of their traditional homes. The Jarawa have only had friendly interaction with their neighbours since 1998 and are highly vulnerable to exploitation, diseases, and dependency on goods such as alcohol brought in by outsiders. Survival International reports that poachers have been using Jarawa women illegally as aides or as a cover for

hunting and gathering forest produce inside the tribe's reserve. There are strong indications that the women are being lured by alcohol, and that sexual exploitation occurs on a regular basis. The tsunami of 2004 could be one reason which shattered these tribals and affected their habitation and demography.

Leave them alone

Veteran anthropologist, T N Pandit is the only person who has visited the isolated Sentinelese several times in the last 50 years and reported their culture. He says: "Of the four Andaman tribal communities, we have seen that those in close contact with the outside world have suffered the most. They have declined demographically and culturally. Their land is occupied. It has happened to the Great Andamanese, to the Onge, and even to the Shompen in Nicobar, who are also a hunter-gatherer people. Over the years, we have not been able to get the Jarawa any benefits. Rather in several cases, settlers are having liaisons with their girls, however minimal. Their food supply like honey, crab and fish are being taken away in exchange for biscuits. They don't need biscuits. They have learned to smoke and drink".

Unlike the Jarawa, who have much more resources to be able to withstand the pressures of civilisation, the Sentinelese are a highly vulnerable population and would disappear in an epidemic. The government's responsibility should be to keep a watch over them in the sense that no unauthorised people reach them and exploit them. Otherwise, just leave them alone.

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Conflict of interest

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