



# Reconsidering the Vaddas of Sri Lanka: Biological and cultural continuity, and misconceptions

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## ABSTRACT

This paper aims to re-examine key scholarly works pertaining to the Sri Lankan Vadda, an indigenous community of the island, in order to explore extant research of the said community. Despite considerable progress, lingering misunderstandings and uncertainties persist regarding their origins, connections to prehistoric populations, affiliations with contemporary ethnic groups, and the interrelationships among different Vadda communities across the island. Furthermore, uncertainties persist regarding the authenticity of Vadda skeletal remains and the adequacy of archaeological samples, which often suffer from fragmentation and incompleteness. It is this archaeological sample that has been used to draw conclusions about the cultural and biological continuity of the Mesolithic population or the Balangoda man (*Homo sapiens balangodensis*) with the Vaddas and the modern populations of the island, thus perhaps distorting interpretations. Similarly, this study underscores concerns regarding the representation of modern samples collected from diverse Vadda clans inhabiting various ecological zones and engaging in different subsistence practices, potentially skewing the conclusions of preceding research. In this study, fresh ethnoarchaeological data are used to examine some misconceptions prevailing about the *Warugas* (clans) as well as the use of the term *Wanniyalaetto* as a synonym for Vaddas. Given the rapid acculturation of Vaddas, there is a pressing need for continued interdisciplinary investigations into the Vadda communities, encompassing different *Warugas* and geographic regions, to ensure a better understanding of their socio-cultural dynamics with the aim of enhanced insight into their evolutionary pathways.

## 1. Introduction

This paper aims to examine the research history and recent advancements in the study of the Sri Lankan Vadda (væd:a) (also spelled *Vedda*, *Vaddah*, *Wadda*, and *Weddah*) people, an indigenous community of the island (see Ferguson, 1904). It assesses anthropological, archaeological, morphometric, and biological inquiries on the Vaddas that have been undertaken, spanning at least from the late seventeenth century to genetic studies undertaken recently. Although the Vaddas are considered one of the 'most famous' indigenous communities in Sri Lanka (Brow, 1978:5), they are the least understood community due to a lack of clarity of various aspects (Bandaranayake, 1993:11), including their very name. The paper also seeks to address persistent misconceptions regarding the origins of the Vaddas, their affiliations to the

Mesolithic population or the Balangoda man (*Homo sapiens balangodensis*), and present-day ethnic communities of the island and elsewhere in the world. Through this analysis, the paper intends to advocate interdisciplinary approaches that encompass the diversity of Vadda communities for future studies, ensuring a nuanced portrayal amidst ongoing assimilation into mainstream ethnic groups.

At present, the main Vadda settlements are located in different ecological zones of the island, primarily concentrated between the watersheds of the river Mahaweli and the Gal Oya, spanning the intermediate and eastern dry zones (Fig. 1). This distribution of their settlements is influenced by the state-led Gal Oya Scheme and Mahaweli development projects undertaken in the 1930s and 1980s, respectively, against their will, depriving rights to their traditional lands (Wijesekara 1987a; Stegeborn, 2004) and bringing them into close contact with urbanised

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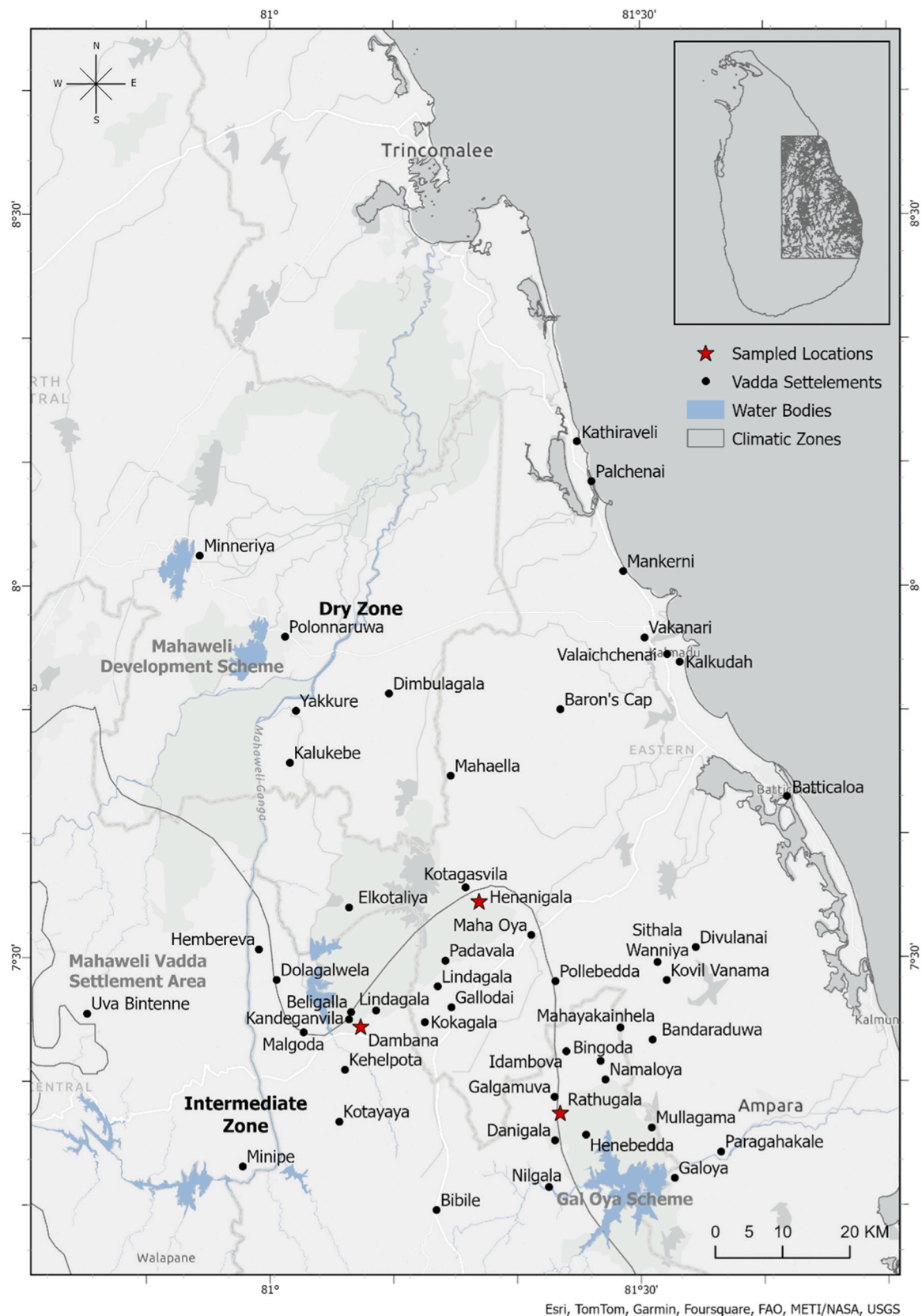


Fig. 1. The present distribution of Vadda villages in Sri Lanka modified after [Bandaranayake \(1993\)](#) and [Stegeborn \(1993\)](#).

societies, leading to a lasting impact. The Vaddas were recorded as ‘relic hunter-gatherers’, primarily occupying the eastern hinterland of the dry lowland by early researchers (Davy, 1821:116; Parker, 1909:36; Seligmann and Seligmann, 1911:1; Deraniyagala, 2004:367). They have largely been hunter-gatherers, or at least depended on forest resources at least until the turn of the nineteenth century (Davy, 1821; Knox, 1681; Parker, 1909; Seligmann and Seligmann, 1911). Interestingly, the ecozones occupied by the Vaddas have also been the habitat of the last hunter-gatherers or the Mesolithic population of Sri Lanka. A connection between the two groups has been suggested by scholars, as they were occupying some of the caves and rock shelters from which the biological and cultural remains of the Mesolithic man were found. This view was further strengthened through the detailed studies of the skeletal remains of the Mesolithic population, which closely resemble those of Vaddas (Deraniyagala, 1939, 1953a, b; Kennedy, 1965:183; Kennedy and Elgart, 1998).

Although establishing a direct link between textual evidence and the earliest known population of the island and the prehistoric period proves to be challenging, a relationship between a legend recorded in the Mahavamsa, the great chronicle of Sri Lanka, generally dated to the fifth century CE, has often been cited to provide insight into the origin of the Vaddas (e.g., Parker, 1909:23–34). The legend describes the island’s indigenous people as descendants of Jivahatta and Disala, who were the children of Kuveni, daughter of a local chief, who lived when the North Indian Prince Vijaya landed accidentally on the island in the sixth century BCE (Mahavamsa Ch. 7:10–67). This reference suggests a longstanding presence of indigenous communities, including the ancestors of the Vadda people in the island, as may be supported by the discovery of the earliest settlements dating at least from 125,000 BP from the island (Deraniyagala, 2004).

The Sri Lankan Vaddas are frequently considered to hold particular significance, offering valuable insights into the trajectory of broader human evolution as they have been considered a ‘distinctive physical anthropological entity’ since the latter part of the nineteenth century (Hill, 1932, 1941, 1945; Sarasin and Sarasin, 1893, 1908; Virchow, 1888). At least since the publication of Knox’s seminal account in 1681, scholarly inquiries into the Vaddas have made substantial progress. Early investigations were primarily concerned with delineating their physical attributes, as evidenced by academic endeavours such as those by Virchow (1888), Thompson (1889), Volkow (1903), Hill (1932), and Wikramanayake and Wikramanayake (1992). Additionally, scholarly attention has extended to encompassing broader facets of the Vadda culture, as evidenced by studies by Wijesekara (1982, 1987a, b) and Wikramanayake (2004). Linguistic investigations, such as those conducted by Frederick (1935), Dharmadasa (1974), and de Silva (1972), have significantly contributed to understanding the linguistic affiliations of the Vaddas. Moreover, the exploration of their potential connections with both the Mesolithic population and the Vaddas has been a subject of interest, as evidenced by research by Deraniyagala (1939, 1953a, b), Kennedy (1965), Kennedy et al. (1987), Hawkey and Kennedy (1993), and Chandraratne (2016). Studies on the Vaddas, however, kicked off with attempts to use them as ethnographic analogies to understand the prehistoric cultures of the island (Sarasin and Sarasin, 1886, 1907, 1908; Sarasin, 1926; Seligmann and Seligmann, 1911, 1908; Seligmann 1908a, b). These investigations aimed to place the Vaddas within a broader evolutionary and cultural-historical context and understand their relationships with ancestral and modern populations. Such studies not only provided the much-needed background knowledge about the Vaddas but also faced challenges due to limited data and methodological constraints.

Owing to the increasing significance of Sri Lanka in the discourse on human evolution, there has been a continued proliferation of publications focusing on genetic diversity (Ellepola and Wikramanayake, 1986; Ellepola, 1990; Fernando et al., 2023; Ranasinghe et al., 2015; Rana-weera et al., 2014; Welikala et al., 2024) and Stable Isotope Analysis (Roberts et al., 2018) of Vadda populations in various parts of the island.

These interdisciplinary approaches have shed light on the genetic makeup of the Vadda community, providing insights into their ancestry, migration patterns, and genetic admixture with other ethnic groups while facilitating a broader discourse on human genetic diversity in the region.

Despite these highly commendable works, certain misconceptions persist regarding the origin of the Vaddas, their relationship to prehistoric man, and their interactions with present-day ethnic communities. The authenticity of Vadda skeletal samples (Kennedy, 1965:183) and the fragmentary nature of archaeological samples raise doubts about cultural and biological continuity (Deraniyagala, 1980:176–177). Close interactions between the Vaddas and agricultural and urban societies, Knox (1681) and Wijesekara (1987), suggest genetic mixing with other communities, challenging the assumed homogeneity of the Vaddas (Wijesekara 1987a:57). Additionally, diverse Vadda clans, such as the Wannu Vaddas, living in various ecozones have not been adequately represented in research sampling, impacting the outcomes of research yet to be undertaken. Given the rapid assimilation of Vaddas into mainstream ethnic groups, interdisciplinary studies encompassing various Vadda clans and geographical regions are essential for a comprehensive understanding of the Vaddas before further acculturation. Similarly, biological and cultural continuity should be reconsidered in light of recent archaeological discoveries, the advancement of analytical methods, and fresh ethnographic studies.

## 2. Methodology

This research draws upon published literature concerning Sri Lanka’s indigenous community, spanning administrative reports and research papers since the British colonial period to the present. The examination of literature was facilitated through prominent scholarly search engines such as Google Scholar, Scopus, and CrossRef for accessing the latest scholarly contributions. Older publications were located through cross-referencing and utilising the catalogues of the National Archives of Sri Lanka.

Through a thorough examination, we identified four key themes that emerged from previous studies:

- I. Biological and cultural continuity from ‘the Mesolithic population’ to the ‘Vaddas,’ and possibly to the present ethnic communities of Sri Lanka
- II. Scientific and biological analysis that seems to reassess the view of cultural and biological continuity
- III. Classification of the Vaddas according to their ‘racial’ and ‘Wauga/Wariga’ (clan) groups
- IV. Growing misconception of the term ‘Wanniyatto’ as a synonym for the Vaddas

Selected literature was systematically organised within a database. Consequently, references were grouped according to the thematic categories cited above, reflecting their relevance to the primary focus of this study, which centres on the biological and cultural continuity of the ‘Vaddas’ and associated misconceptions.

### 2.1. Ethnoarchaeological sampling

The use of ethnographic analogies may be traced back at least to classical evolutionary ideology and more specifically in the prehistoric archaeology of the middle of the nineteenth century (Lubbock, 1865; Wilson, 1851) and the early twentieth century (Sollas, 1912) in very simple terms. The uncritical use of ethnographic analogies drew a strong reaction in the middle of the twentieth century (Freeman, 1968; Gould and Watson, 1982; Gould, 1980). The indigenous communities cannot be considered either as ‘living fossils’, or their societies as ‘naïve stereotypes’ (Lyons and David, 2019). They can, however, be used as analogous to interpret prehistoric societies as done in Sri Lanka (Sarasin

and Sarasin, 1908:21; Seligmann and Seligmann, 1911:4; Allchin, 1958; Deraniyagala, 2004) and provide valuable insights into their social structure and functioning (Bohingamuwa and Siriwardena, 2010; Brow, 1978) as well as their possible links to past human societies. The present ethnographic survey was undertaken in the spirit of the latter understanding.

In our ethnographic survey, we adopted a qualitative research design to collect primary data aimed at understanding the perspectives of the Vadda community regarding the concepts of ‘Waruga’ and ‘Wanniyalaetto.’ Between January and April 2024, the third author conducted a limited ethnographic survey in Dambana, Hennanigala, and Rathugala, key Vadda villages in Sri Lanka (Fig. 1). Field data was collected using multiple methods, including participant observation, in-depth interviews, and key informant interviews with senior members from each Vadda settlement. Personal observations were instrumental in acquiring contextual knowledge concerning the social hierarchy within the Vadda community. The purpose of this survey, besides examining the perceptions of ‘Waruga’ and ‘Wanniyalaetto,’ was to collect data pertaining to issues such as those related to the origin of the Vaddas, marriage, and clan hierarchy. The consent of the participants was obtained individually for using the data obtained through interviews for the publications.

The sampling method used in ethnography in this study is snowball sampling, which is characterised as non-probabilistic and widely used in qualitative research. Semi-structured interviews were conducted using a predesigned questionnaire, which was used only for guide interviews. The sampling strategy involved selecting a minimum of 10 individuals from each Vadda village, targeting the oldest generation aged above thirty. Consequently, the youngest participant is thirty-six, while the oldest is eighty-eight, and is included in the present sample. The total number of individuals interviewed is 40. Seventy per cent of the sample (n = 28) consists of individuals aged over fifty. The 40–50 age group accounts for 20 % of the total population. Together, these two age groups comprise 90 % of the total sample. Among those aged above fifty, males constitute 60.7 % (n = 17) of the sample, while females make up 39.3 % (n = 11) (Table 1).

Subsequently, the qualitative data collected through the interviews was transcribed, translated into English, and analysed through content analysis, followed by critical disclosure analysis to identify themes and patterns associated with participant responses (i.e., specific chronologies and names of ‘Warugas’). Descriptive statistics, such as percentages, mean values, and standard deviations, were generated using Microsoft Excel 365. Percentages referenced in the text represent the proportion of respondents within the mentioned subsample who expressed a particular statement.

2.2. Theme one: biological and cultural continuity from ‘the Mesolithic population’ to the ‘Vaddas’, and possibly to the present ethnic communities of Sri Lanka

As noted earlier, the Mahavamsa (Ch. 7:10–67) records the Vaddas as the descendants of the Children of Kuveni, the Yakkha princess, who represented the inhabitants of the island when the historically recorded first wave of North Indian migrants landed. Based on this historical record, the Vaddas were considered ‘mixed descendants of the Sinhalese and the Yakkhas’ (Sarasin and Sarasin, 1908:21; Parker, 1909:19, 23; Seligmann and Seligmann, 1911:4). This idea of cultural and biological

continuity was given a material basis only when the human skeletons of Mesolithic populations were studied by Deraniyagala and Kennedy (1989).

Sarasin and Sarasin (1908) illustrate the existence of an indigenous culture in Ceylon (Sri Lanka before 1972) predating the arrival of the so-called Aryans. They conducted a survey of the ‘Vadda country’ between Nilgala and Bibile (Ecozone C, as per Deraniyagala’s ecozone classification [2004]) (Seligmann and Seligmann, 1908), uncovering prehistoric remains in caves and rock shelters still inhabited by the Vaddas. Sarasin (1926) posited that there existed a pre-Vadda population in Ceylon —whose culture was analogous to the Aurignacian of Europe. They supported this assertion by noting the presence of undisturbed stone artefacts in caves and at factory sites such as Bandarawela, found at recent depths within the layers (Seligmann and Seligmann, 1908:116). However, Wayland (1919, 1926) challenged this assertion, suggesting that the Sarasins incorrectly attributed the stone implements found beneath Palaeolithic layers to contemporary Vaddas. This view was corroborated by Forbes (1926), who argued that these implements should be assigned to the upper Palaeolithic period (see also Parson, 1904, 1908).

2.3. Human occupation beyond the Vaddas

The presence of a Mesolithic population on the island was first established by Bell (1917) and further supported by the discovery of human skeletal remains at Batadomba-lena in 1939 (Kennedy, 2000:236). Archaeological findings from sites such as the Ratnapura gem pits and the Iranamadu Formation, as documented by Deraniyagala (1963a, b, c), indicate human habitation in Sri Lanka dating back at least 125,000 years (Abeyratne et al., 1997; Deraniyagala, 2004). Excavations at sites such as Bundala, Minihagalkanda, and Patirajawela within the Iranamadu Formation support the existence of a middle Palaeolithic culture during this period (Deraniyagala, 1986, 2004). These early inhabitants may have shared characteristics with the Narmada hominin of Central India, also linked to the middle Palaeolithic (Kennedy, 1999, 2000; Patnaik and Chauhan, 2009; Sonakia and de Lumley, 2006).

While anatomically modern humans have been present in Africa since approximately 350,000 years ago (Hublin et al., 2017), the earliest evidence of modern humans in Asia dates back around 194,000 years in the Misliya Cave, Israel (Hershkovitz et al., 2018). It is proposed that behavioural modernity within our species emerged in coastal regions of the Middle East and South Asia (Mellars, 2006; Stringer, 2016). In Sri Lanka, the earliest evidence for certain human habitation dates back to around 48,000 years ago, with significant findings in the lowland tropical rainforests such as the Fa Hien cave (48,000 Cal BP), Batadomba-lena (38,000 Cal BP), Kitulgala Beli-lena (33,000 Cal BP), and also in the dry zone, Kuragala (12,000 Cal BP) (Abeyratne et al., 1997; Deraniyagala, 2004; Gunarathne, 1971; Kennedy et al., 1971; Perera, 2010; Perera et al., 2011; Picin et al., 2022; Roberts et al., 2015; Wedage et al., 2019a, 2019b, 2020). Sri Lanka also holds the distinction of being the second-oldest location in Asia to exhibit evidence of bow and arrow technology, with evidence of microlithic stone tools used in lowland rainforests predating the Eurocentric term ‘microlithic’ by at least 12,000 years (Langley et al., 2020; Lewis et al., 2014; Perera et al., 2011; Picin et al., 2022; Simpson et al., 2008; Wedage et al., 2019a, 2019b, 2020).

Table 1  
Sample of the ethnographic survey.

Sample Location	30–40		40–50		Above 50		Total
	Male	Female	Male	Female	Male	Female	
Dambana	3	0	3	0	7	3	16
Rathugala	0	0	2	2	5	5	14
Hennanigala	1	0	1	0	5	3	10
Total	4	0	6	2	17	11	40



## 2.4. Earliest human remains

The Fa Hien cave stands out as the earliest site in South Asia to yield fossil evidence of modern humans (Kennedy and Zahorsky, 1997; Perera, 2010), followed by Batadomba-lena. Furthermore, Bellan-bendi-Palassa (Deraniyagala, 1971; Deraniyagala and Kennedy, 1972; Simpson et al., 2008), Kuragala (Eregama, 2022; Stock et al., 2022), Pallemalala (Ranaweera and Adikari, 2022), Mini-athiliya (Kulatilake et al., 2014, 2018), and Godavaya are identified as hunter-gatherer microlithic sites from the early to the late Holocene period (10,000–3000 years ago). Palaeobotanical studies in the Central regions suggest early rice domestication in the late Pleistocene to the early Holocene (Kajale, 1989, 2013; Murphy et al., 2018; Premathilake, 2006; Premathilake et al., 1999; Premathilake and Hunt, 2018; Premathilake and Seneviratne, 2015).

By the late Holocene, settled agriculture became predominant in Sri Lanka (Murphy et al., 2018), with widespread metallurgical activities evident in Early Iron Age sites (Seneviratne, 1984; Bandaranayake, 1994; Bandaranayake et al., 1990; Juleff, 1996). Archaeological studies have provided valuable insights into the subsistence and symbolic practices of these ancient peoples (Seneviratne, 1984; Somadeva, 2014; Somadeva et al., 2017, 2018).

References in ancient chronicles and colonial records attest the existence of indigenous ethnic groups such as the *Yakkhas* (Mahavamsa Ch. 1:183, 483) and *Nagas* (Mahavamsa Ch. 2:39), as well as the Vaddas and the Nittayo tribes (Spittel, 1963). The Mesolithic population of the island was first identified based on human remains from Batadomba-lena excavated in 1939 (Kennedy, 2000:236). Later, Deraniyagala assigned this secondary burial context and associated materials to 'Balangoda Culture'. He attributed the lithic artefacts unearthed to *Homo sapiens balangodensis* (Deraniyagala, 1940a, b, 1941, 1942, 1943a, b, 1953a, b). The holotype of *Homo sapiens balangodensis* is known from a frontal bone and a well-worn last molar from the Ravana Ella cave (Deraniyagala 1945a, b, 1953a, b, 1958a), and later from Kuruvita and Telulla (Deraniyagala, 1955), and subsequently in Bellan-bendi-Palassa (Deraniyagala 1963c, 1963a, 1958a, b) which exhibited dolichocephalic features, thick brow ridges in males, and well-worn third molars, indicative of a rough diet. Skeletal remains from Sarasin's excavations align with the Mesolithic context, characterised by heavily worn teeth and robust cranial fragments (Sarasin and Sarasin, 1908:90–92). Deraniyagala (2004) notes exceptionally thick craniums in Batadomba-lena specimens, with prominent supraorbital ridges. The Alu-galge specimen displays thick frontals, heavy supraorbital ridges, and a well-worn last molar, suggesting a rough diet. Deraniyagala (1955) suggests small pelvises with strong Australoid features could be direct ancestors of the Vaddas. He interprets Bellan-bendi-Palassa remains as bridging stones between the Vaddas and the island's Mesolithic population (Deraniyagala, 1960; Deraniyagala 1958a, b).

## 2.5. The physical anthropology of the Vaddas

Hill (1932) conducted expeditions into the Vadda territories, collecting and anthropometrically measuring the skeletal remains of Vadda males. Among the specimens, one belonged to a tall 'Poramala' individual, while the other, a young female referred to as 'Handi', displayed severe jaws-related pathologies, likely from prolonged household chores. Hill observed common pathologies such as perforated olecranon fossa among Vaddas, along with unusual anomalies like sacralization of the last lumbar vertebra and complete absence of the last pair of ribs. Recent studies reveal prevalent pathologies among Vadda specimens, including cribra orbitalia (65.8 %), dental caries (41.7 %), dental abscesses (26.3 %), and dental enamel hypoplasia (13.2 %) (Kulatilake, 2020). The author suggests that the lower level of caries and dental abscesses could be a result of a more varied, cariostatic diet. Furthermore, Vadda subsistence from Stable Isotope Analysis has been conformed to the scenario (Roberts et al., 2018). The functional value of

Vaddas' third molars has also been proved by Pathmanathan and Wikramanayake (1993).

Wikramanayake and Wikramanayake (1992) recorded a complete set of anthropometric measurements to track secular trends in the physical anthropology of the Vaddas. They noted variations in measurements depending on the Vadda's geographical area, suggesting relatively large-bodied individuals in the Bandara clan, superior to the Goigama caste of the Kandyans. Despite pathologies, no significant secular trends in physical anthropology were observed over 40 years and no significant differences were found in dental elements among the Vadda, Sinhala, and Tamil ethnic groups (Peiris et al., 2011).

Hewapathirana et al. (2014) estimated sexual dimorphism and tooth size variations among Vadda clans using 48 dental casts, analysing incisors, premolars, and molars of adult contemporary Uva Bintenne Vaddas. Kulatilake (1996) observes a retention of ancestral traits, particularly the high degree of dolichocrany, as evident among the Vaddas, the South Indian prehistoric populations, and the South Australian Aboriginal groups. An examination of Sarasin's collection of Vadda crania revealed size-based sexual dimorphism, with Vadda crania generally smaller than Sinhala or Tamil crania (Kulatilake, 2020). Observations by Kennedy et al. (1987) and Kulatilake (2020) on historical crania, based on Deraniyagala (2004:331–32) descriptions of the Mesolithic population, highlight notable characteristics of Vadda cranial morphology (Table 2).

The Vaddas, believed to be descendants of the Mesolithic population, exhibit morphological continuity spanning over 10,000 years, with discernible evolutionary changes. Studies on physical anthropology by Deraniyagala and Kennedy (1989) and Kennedy et al. (1987) highlight distinct physical features in the modern Vaddas not typical of the earlier prehistoric populations. Dental patterns from Pomparippu show similarities to Vadda dentition, as indicated by Lukacs and Kennedy (1981), likely influenced by cultural practices and ecological shifts. The Bellan-bendi-Palassa Mesolithic population's remains share morphological traits with the present-day Vaddas and differ significantly from those of other ethnic groups on the island (Kanthilatha et al., 2012). A dentition study suggests the same phenomenon of sharing the same line of osteological heredity (Hawkey, 1998, 2002a, b; Hawkey and Kennedy, 1993). Additionally, Hawkey (2002b) suggests Vaddas share similarities with early archaic humans on the island. Dental resemblances between Vaddas and Indian hunter-gatherers (Majumder, 2010), as well as with Sinhalese and Tamils, imply genetic mixing with island populations, supported by Peiris et al. (2011) showing affinities with western Eurasian populations. Virchow (1888:458) suggests that "the Vaddas would appear rather as representatives of aboriginal race, the Sinhalese vice versa as hybrids produced as a union of immigrant Indians and Vaddas". These studies seem to suggest that the Mesolithic period skeletal remains share significant similarities with the modern Vaddas. This, in turn, may indicate a continuity in both biological traits and cultural practices that might even extend to the present ethnic communities in Sri Lanka, as already suggested by some authorities. Archaeological and even modern samples, however, are still insufficient to make such conclusions.

## 2.6. Theme two: scientific/ biological analysis that seems to reassess the view of cultural and biological continuity

Recent studies by Robert et al. (2018) have shed light on the osteological characteristics of the historical Vaddas through Stable Carbon and Oxygen Isotope Analysis of human tooth enamel. Statistical analyses compared Vadda populations to late Pleistocene and Holocene tropical forest foragers in Sri Lanka, revealing differences in resource exploitation and dietary patterns (Roberts et al., 2018). Additionally, Deraniyagala (2004) studied blood group distributions among the Vaddas, finding the 'O' blood group to be predominant. The AB gene was identified in one sample, while the A gene was notably absent. Wijesekara (1982:3) states that the majority of Vadda belongs to the 'O' blood

**Table 2**

A comparison of the osteological features of the Vadda community and the Mesolithic population and the Early Iron Age population.

Trait	The Mesolithic Population	Megalithic Builders (Pomparippu) (Begley et al. 1981)	Vaddas
Estimated Stature	1.74 m; 1.65 m (Kennedy et al. 1987)		1.56 m (Seligman and Seligman 1911:16; Wikramanayake et al. 1994)
Cranial Capacity	1589 cc	1243–1233 cc (Kennedy, 1975)	1278 cc (Seligman and Seligman 1911:16)
Feature	Dolichocephalic	Dolichocephalic (Kennedy, 1975)	‘dolichocranic’ or ‘hyper dolichocranic,’ with broad facial regions (Kulatilaka 2020:122)
Facial construction	Face would have been wide	Frontal bone is low and slightly bulbous (Lukacs and Kennedy, 1981)	Face is long rather than being broad (Seligman and Seligman 1911:17)
Brow ridges	Divided and extremely thick	A supraorbital foramen of large size is visible (Lukacs and Kennedy, 1981)	Slightly prominent (Thompson, 1889)
Orbits	Sub-rectangular and deep		Deeply set or sunken (Seligman and Seligman 1911:17)
Chin	Pointed and better developed		Slightly pointed
Cheek bones	Prominent		Moderately prominent
Jaws	Unusual massive projections (Kennedy et al. 1987); More powerful than Vaddas	Relatively Small	Not prognathous (Thompson, 1889:128)
Nostrils	Dull, and sub nasal grooves are deeply furrowed (Kennedy et al. 1987)	Board	Moderately broad
Nasal bone	Concave dorsally, depressed nasal notch	Shallow nasal notch, slightly concave (Lukacs and Kennedy, 1981)	Depressed, but never flattened to any considerable degree
Mastoid Process	Robust and stronger	Small mastoid process, short digastric fossa (Lukacs and Kennedy, 1981)	Moderately built (Thompson, 1889)
Teeth	Larger premolars than Vaddas	Shovel shape incisors: Incisors and canines reveal large patches of dentine whole the premolar and molars remain relatively unworn (Lukacs and Kennedy, 1981)	Moderately built
Scapula Hands	Larger than Vaddas Larger than Vaddas (Kennedy et al. 1987)		

group.

Kennedy (1965:202) suggests that both the island’s Mesolithic population and the Vaddas appear to share a common gene pool, pointing to a strong genetic affinity between them based on the high frequency of shared morphological traits. Genetic analyses conducted by Ellepola

(1990) and Ranaweera et al. (2014) have revealed significant genetic similarities between the Vaddas and Sinhalese populations (also pointed out by Deraniyagala 1963e), while also indicating distinct genetic origins for the Vaddas, potentially linked to populations of the Indian subcontinent. According to Ranasinghe et al. (2015), the Vaddas also have more genetic similarity to Sinhala people than Tamil people. However, the advanced genetic admixture of some Vadda subgroups with other ethnic inhabitants is further confirmed by the presence of several shared sub-haplogroups. This stern genetic drift might be a result of practicing endogamy among isolated settlements in different regions. A genetics investigation conducted recently (Welikala et al., 2024) employing high-resolution autosomal and mitochondrial DNA analysis suggests a closer genetic affinity between the Vaddas and certain tribes and castes from India than with the Sinhalese and the Sri Lankan Tamil populations. These findings suggest a unique genetic identity for the Vadda community, characterised by genetic drift and minimal genetic exchange with neighbouring ethnic groups. In 1965, Kennedy clarified this positive genetic affinity, attributing the morphological similarities observed among Vaddas and various Indigenous tribes in India and Australia as parallel adaptations shaped by similar environments and subsistence strategies (Kennedy, 1965:206).

The fact that the Vadda population is genetically distinct from mainly Sinhalese and Tamils (Ranaweera et al., 2014), followed by the lowest genetic diversity among the six other ethnic groups of the island (Ranasinghe et al., 2015), may indicate a genetic drift with longer periods of isolation in this group. The Vadda population’s gathering independently from other contemporary ethnic groups of the island (Ranasinghe et al., 2015; Ranaweera et al., 2014) may be a gauge of aiding the historical belief that they are descendants of early inhabitants who once occupied the island. In a broader sense however, their true origin appears to be different. Wijesekera (1982) considered the Vaddas to be a distinct human type known as ‘Veddoid’ (Wijesekera, 1982). This idea was present when earlier workers considered the Vaddas as a ‘distinctive physical anthropological entity’ (Virchow 1886; Sarasin and Sarasin, 1892, 1893; Hill, 1941; Stoudt, 1961). Wijesekera (1982), argues that due to frequent intermarriage between the Sinhalese and Vadda communities, the resulting admixture led to the disappearance of a distinct Vadda identity, with no ‘pure’ Vaddas remaining by 1982. Their true genes have vanished due to this advanced mixture of marriages. This raises questions about the preservation of the Vadda’s genetic identity over time. Thus, while there is evidence of historical isolation, the genetic identity of the Vaddas has likely been influenced by significant admixture over time.

### 2.7. Theme Three: Classification of the Vaddas according to their ‘racial’ and ‘Waruga/ Wariga’ (clan) affiliation

Waruga is an important criterion used to classify the Vadda community, though its origin and exact meaning remain unclear. Nevill (1886:176) appears to be the first to note Warugas, yet some of those he mentioned were not identifiable even by Seligmann and Seligmann (1911:71). Leach (1961, 1963) suggests, as cited by Brow (1978:21) that Warigaya (as prevalent among the Sinhalese) is a classificatory system of ethnic groups, and it indicates the hierarchy among the Vadda clans (Wijesekera 1987b:69). During the 1921 Census of Ceylon, Vadda affiliation with a ‘Waruga’ was a key criterion to identify the Vaddas and prevent the Sinhalese from falsely claiming Vadda identity to obtain land (Turner, 1923; Wijesekera, 1987b:39).

‘Waruga’ or ‘Wariga’ discussed here seem to be the clans described by Seligmann and Seligmann, who recorded six major exogamous clans (Seligmann and Seligmann, 1911:71–80) and territorial ethnic groups; each one of these groups said to have had their own caves (ibid. 33; Deraniyagala, 2004:387), leading to close territorial identities (Hill, 1941:41; Deraniyagala, 2004:387).

In any case, every Vadda belongs to a ‘Waruge’ or clan (Seligmann and Seligmann, 1911:30). These classifications are often based on

factors such as familial lineage, geographic location, or specific cultural practices. Although a considerable number of studies have been undertaken on *Waruga* at least since the nineteenth century (e.g., Nevill, 1886:176; Seligmann and Seligmann, 1911:70; Wijesekara 1987b:39, 68–70; Rammungoda, 2010:367–390) (Table 3), ambiguities and misconceptions seem to persist about the origin, function, and even the classification of *Waruga* to date. Misunderstanding the term *Waruga*, among other things, is likely to have contributed to this situation, underscoring the need for further research into this aspect of Vadda culture and society. This led us to undertake fresh ethnographic studies to clarify a few unresolved issues about the Vadda community, including the *Waruga*. However, we do not claim to have undertaken adequate sampling ourselves due to time and funding constraints.

One common classification system among the Vadda is based on lineage or descent, with individuals belonging to distinct clans tracing their ancestry back to specific progenitors or founding figures (Wijesekara, 1982). These clan affiliations may influence social organisation, settlement distribution, and marriage patterns within Vadda communities (Leach, 1963). Certain classifications may have emerged as a means of organising labour, managing resources, or preserving cultural identity within the Vaddas. Wijesekara (1987b:69) notes that specific tasks or jobs were undertaken by certain *Warugas*. For example, the Nambudewage *Waruga* was responsible for collecting animals hunted by the Morana and Unapana *Warugas* and preparing the creepers required for honey harvesting (Wijesekara 1987b:69). This suggests that the professions of specific ethnic groups may have given rise to these *Warugas*, as has been the case with the Goigama (agricultural caste). Interestingly, Wikramanayake (2002:109) states that ‘the varige became extinct since the Gal Oya Development Scheme,’ came into being, indicating significant changes in the Vadda social structures due to development initiatives.

Wijesekara (1982:9) highlights the Vadda’s deep pride in their heritage, considering themselves superior to the Sinhalese, who in turn regard them as jungle aristocrats, known as ‘Bandaras.’ He identified twelve clans (*Warugas*), with only a few being well-remembered. The Bandara clan is esteemed as the highest, from which chiefs are traditionally selected (Wijesekara 1987b:69–70). The Morana and Unapana clans are prominently recognised within the Vadda community; they are, however, below the Bandara *Waruge* in order of hierarchy. Each clan had specific functions; for instance, the ‘Nadudera’ clan was responsible for carrying fish for the Morana and Unapana clans. The Uru

clan, from which the current chief of the Vadda community descends, was considered inferior to the Bandara, Morana, and Unapana clans (Wijesekara, *ibid.* 1982:9) at least in the 1980s.

As is clear from Wijesekara (1987b), the Uru *Waruge*’s rise to prominence and the selection of the Vadda chief from this clan appear to have occurred relatively recently. During Wijesekara’s research in the 1930s, there were several chiefs from different *Warugas*. D.E. Hettiarachchi, the Chairman of the Sinhala Dictionary Office, notes in the preface to Wijesekara’s publication that, Wijesekara had close contact with famous Vadda chiefs such as Thisahamy, Kaira Wanniya, Bingoda Kaira, Pollebedde Kaira, and Poramola, with photos included in the publication. Notably, note 28 features ‘famous Thisahamy describing his notorious works to a visiting researcher’ (Wijesekara 1987b: Note 28; Translation from Sinhala to English ours). It remains unclear if this is the same Uru *Waruge* Thisahamy who later became the leader of the entire Vadda community, possibly during the implementation of the Mahaweli development project. Officials may have had a hand in bringing him in as the leader to control the Vadda community, as they did with Kaira Wanniya at Pollebedda. When the Gal Oya Scheme was implemented, the displaced Henebadda Vaddas, were noted mingling with Pollebedda Vaddas. The Resident Manager of the Gal Oya Board attempted to appoint Kaira Wanniya as the leader and settle the Vaddas in Pollebedda, but only three Vaddas attended the meeting. Kaira Wanniya declined the position, citing the violent nature of Pollebedda Vaddas. Ultimately, it was decided to settle Pollebedda Vaddas separately and provide a house to Kaira Wanniya (Wijesekara 1987b:52).

As mentioned earlier, the origin of the concept of *Waruga* remains uncertain. Folklore accounts are embedded within the comprehensive writings of Seligmann and Seligmann (1911:70–75), yet specific details regarding the temporal and geographic context are lacking (refer to

**Table 3**  
References to ‘*Waruga*’ in published literature according to social hierarchy.

Reference	The number of clans identified	‘ <i>Waruga</i> ’/ ‘ <i>Wariga</i> ’ (Clans)	Remarks
Nevill (1886:176)	13	Morana, Unapana, Bandara, Namada, Urawadiya, Uru, Kovil Vaname, Ambalana, Thala, Thambalagama, Kattakulam, Anuradhapura, Muhudukara	Coastal <i>Warigas</i> are clustered as ‘ <i>Muhudukara</i> ’)
Deraniyagala (1963:111–148)	4	Rugama, Kaballe, Kuruweni, Kiri Dakwu	In addition to those reported by Nevill (1886)
Seligmann and Seligmann (1911:70)	6	Morana, Unapane, Namadewa, Aembela, Uru and Tala	
Seligmann and Seligmann (1911:332–33)	6	Ogata, Kavatham, Umata, Umatam, Aembaneduwu, Ambalana	Coastal Vaddas from Batticaloa
Rammungoda (2010)	4	Uru, Thala, Morana, Unapana	Today the number of clans have been redacted to 4

**Table 4**  
References to ‘*Waruga*’ in published literature according to geographical location.

Reference	Types of Vadda	Location	Remarks
Knox (1681:116–117)	Tamed Vaddas	Dambana	Had close contact with the Kandyan Royal Court and fought against the Dutch (see also Parker, 1909:101–2). Mentioned as ‘Wild beast’ or ‘Wild men’
Davy (1821)	Wild Vaddas/ Ramba Vaddas Vadda (Savage People)	Bintenna  Vadi Rata (Bintenna) Maha Vadi Rata (Uva)	Mainly lived in the Sabaragamuwa and Coastal areas.
Marshall (1846)	Vadda (Beda) Gam Vadda Gal Vadda	Along the Mahaweli River, mostly in Bintenna	
Tennent (1860)	Gal Vadda Gam Vadda		The British tried to civilize them; population was 8000.
Seligmann and Seligmann (1911)	Batticaloa Vaddas Dambana Vaddas		Batticaloa Vaddas mixed with Tamils Dambana Vaddas mixed with Sinhalese (Show Vaddas)
Brow (1978) and Bohingamuwa and Siriwardena (2010)	Vadda	Anuradhapura	Wanni Vaddas have no relation to the Vaddas of Dumbura and Bintenna. Their biological and genetical relation to the main group of the Vadda remains unknown

Table 4). Within the Vadda community, perceptions of the concept of *Waruga* significantly vary (Fig. 2): 42 % view it as a means to denote their lineage, while 35 % regard it as a surname. A smaller percentage associate it with commemorating their birthplace (2 %) or fulfilling various duties (3 %). Notably, 18 % of respondents expressed uncertainty regarding the significance of *Waruga*. Seligmann and Seligmann (1911:71–73) propose that *Waruga* serves as a commemoration of birthplaces, based on their research findings. Interestingly, Wijesekara (1982:19) states that the different areas of the jungle were allocated according to *Waruga* affiliations. For example, Danigala was regarded as the ancestral home of the Morana clan, while Henebadda belonged to the Unapana clan. Dambana, Miyangoda, Galkele, and Makada were associated with the Kovilavana clan, with a section of the Dambana clan believed to have discovered *Valli Amma*, the Vadda spouse of the God Kataragama.

However, the existing literature does not provide a consensus or citation regarding the origins of the concept of *Warugas*. Our survey revealed that even within the Vadda communities, there is a lack of clear understanding regarding the origin of their respective *Warugas* (Fig. 3). A quarter (25 %) of the participants assert that the existence of their *Warugas* predates recorded history, indicating a period extending into prehistoric times. Conversely, 30 % of participants believe that their *Warugas* originated relatively recently, approximately between 500–600 years ago. Furthermore, 17 % of the participants are aware that their *Warugas* date back to nearly 3000–1000 years ago, while 28 % are uncertain about the origins of their *Warugas*. It was also noted that certain responses seemed to be influenced by recent media reports and external sources. This is evident in the repeated use of specific time periods such as ‘48,000 years ago,’ ‘prehistoric times,’ and the consistent reference to the chronological interval of ‘3000 years to 1000 years.’ This phenomenon may stem from the scholarly assimilation of narratives surrounding ‘indigenous peoples’ purported to have inhabited the region 48,000

years ago, as propagated through media. Senarath (2023) points out that mass media has a strong impact on changing the Vaddas’ way of life and has potential for imitating or echoing media statements. These observations suggest a clear impact of external influences on our ethnographic survey participants’ understanding of their own history and heritage.

In the research conducted by Seligmann and Seligmann (1911:30), exogamy emerges as an established practice fundamental to the organisation of the *Waruga* system, emphasising female descent (see also Leach, 1963). Conversely, our survey findings diverge significantly (Fig. 4), revealing that 73 % of participants reported the absence of exogamous practices within their communities. Rather, the prevailing norm identified by the majority of respondents involved either personal experience or awareness of endogamous customs. However, it is noted that the Vaddas looked down upon descendants of such mixed marriages (Wijesekara, 1982:19).

It is noteworthy to mention that the present day Vaddas have least interest in digging the historical significance of *Warugas*, including the seven *Warugas* of Uru, Thala, Unapana, Nambudana, Kiro, Ambalana, and Morana, which were traditionally perceived as a singular entity. Presently, intermarriages persist among these *Warugas*, indicating a lack of consensus or comprehension regarding the concept of *Waruga* within contemporary Vadda society. It was observed that siblings from the same parents were attributed to different *Warugas*, further underscoring the ambiguity surrounding familial lineage within the Vadda community. Furthermore, a substantial portion of the responses, particularly from female Vaddas, lacked a clear understanding of the historical lineage or social context associated with the concept of *Waruga*. Vadda women are often depicted as possessing a pessimistic disposition. Additionally, individuals with frequent societal engagements exhibited greater interest in responding to our ethnographic questionnaire, whereas those with limited societal interaction lacked substantial

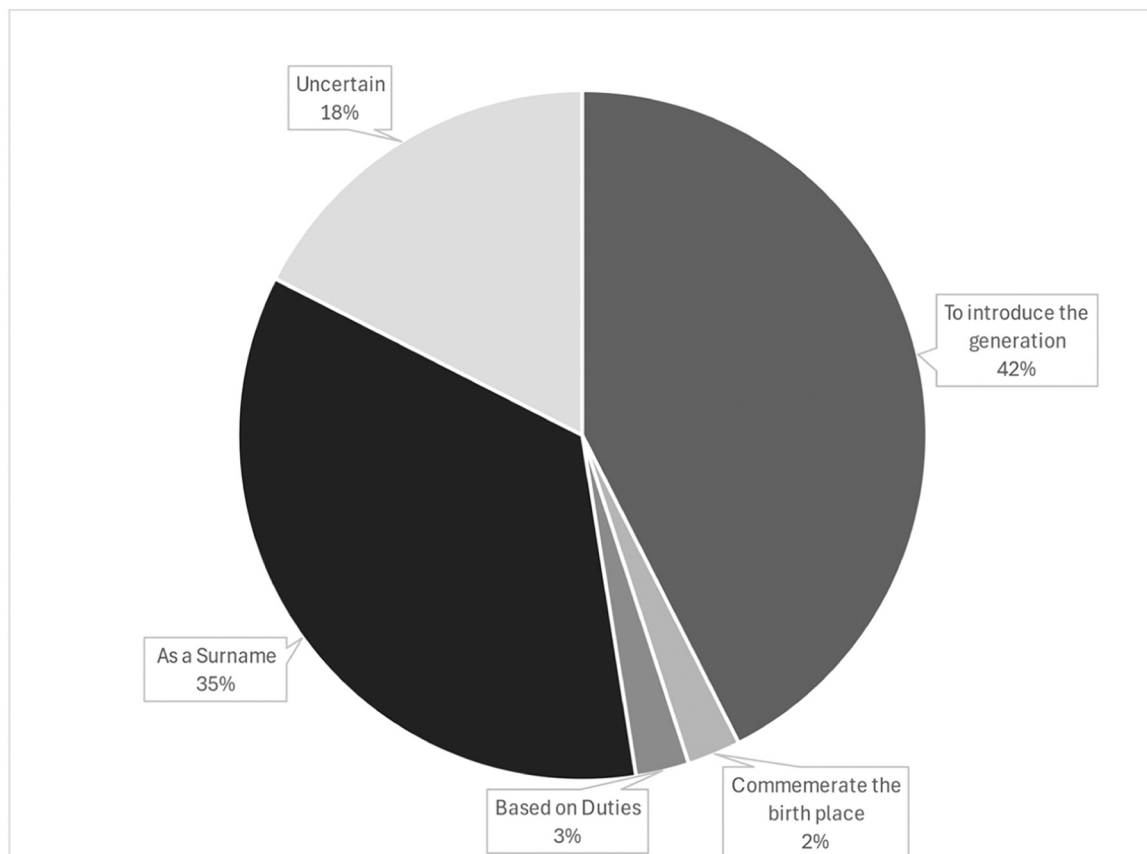


Fig. 2. Responses to the understanding of the concept of *Waruga*.



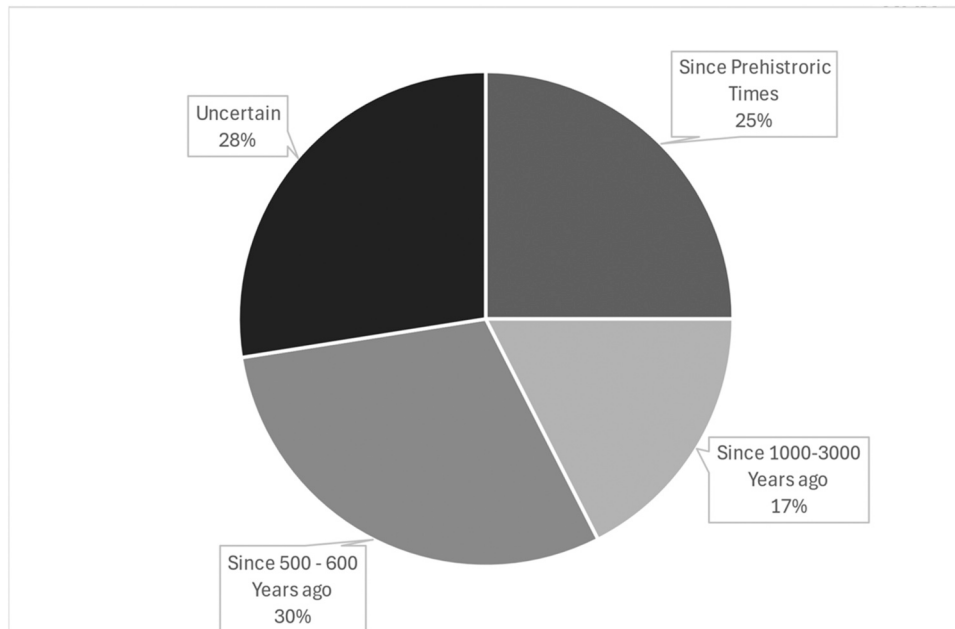


Fig. 3. Responses to the understanding of the origin of the Warugas.

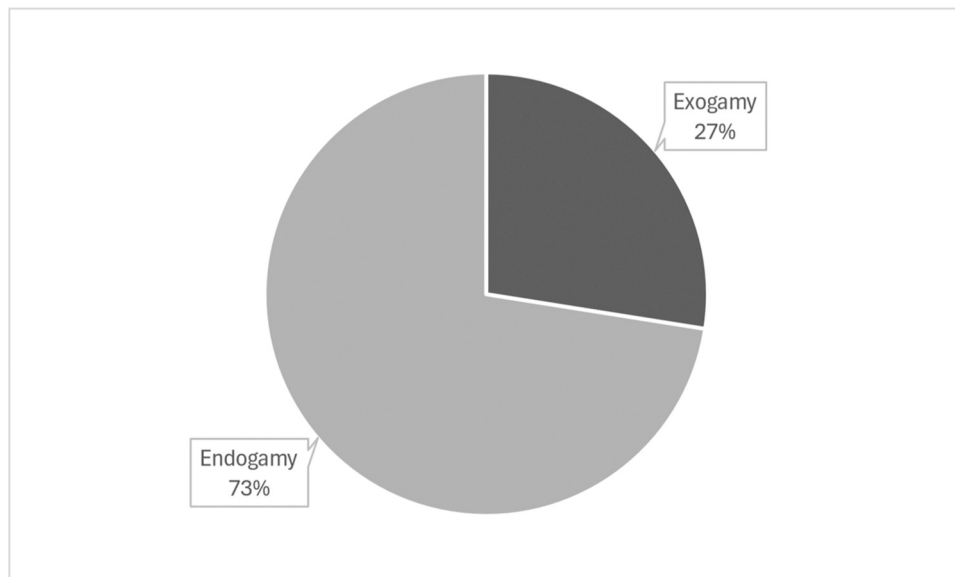


Fig. 4. Perspectives on exogamy and endogamy practices within the Vadda community.

knowledge on the subject, indicating influence of socialization.

#### 2.8. Theme four: growing misconception to use the term 'Wanniyaetto' as a synonym for the Vaddas

There has been a notable trend recently to use the term 'Wanniya-laeto' as a synonym for the entirety of the Vadda community (Fig. 5) (Gabbasov, 2022; Kulatilake, 2020; Roberts et al., 2018; Stegeborn, 1993, 1996, 1998, 1999, 2004; Weerasekara, 2020). This is a misnomer that seems to have arisen due to a misunderstanding of the term. Namalgamuwa (2020a, b), who has conducted an exhaustive study on textual evidence concerning the Vaddas, states that the term 'Wanniyaetto' does not appear in ancient Sri Lankan literature or colonial writings. Additionally, Wijesekara (1987b:70), who has extensively researched the Vaddas both academically and in his official capacity,

does not mention the term 'Wanniyaetto.' Instead, he notes that the names Vaddas use for relatives are similar to those used by the Sinhalese, with the main difference being the addition of 'ge' and 'Aetto.' Examples include 'Ammila Aetto' (mother), 'Appila Aetto' (father), 'Nania Aetto' (sister-in-law), and 'Akkila Aththo' (elder sister). It appears that this term is used to express respect and to indicate close relations. It is important to clarify that the term 'Wanniyalaeto' is composed of 'Wanniya' and 'Aetto'. The meaning of the term 'eto' or 'laeto' is explained in no uncertain terms in the following quote taken from Seligmann and Seligmann (1911:65):

"The words *lage eto*, *lato* or sometimes *leto*, the two last being abbreviations of *lage eto*, were often added to relationship terms; as examples of this we may record *mutta lage eto*, *atta lato*, *maleya leto*. We were told that the term in its various forms had the sense 'of' or 'from my own people,' and it would only be used of near relatives,

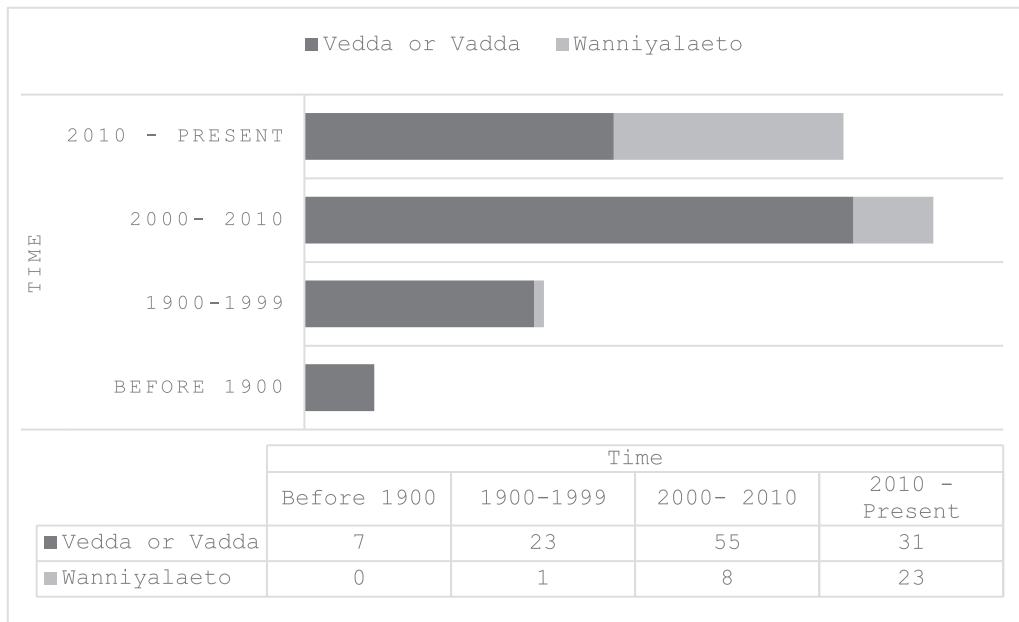


Fig. 5. Frequency of the terms 'Vadda', 'Vedda', and 'Wanniyalaeto' in research publications.

thus Poramala of Henebedda added some form of this word to the terms by which he called almost all his relations. This was not the case at Sitala Wanniya where Handuna (being then in our camp) said that he might use the term *maleya lage eto* when speaking of his brother who was up in the cave."

Of the two terms that comprise 'Wanniyaetto', i.e., 'Wanniya' and 'laeto,' the former refers to a personal name, while the latter is a term used for respect (e.g., gentlemen) or to indicate a close relationship. Therefore, 'Wanniyaetto' in the current usage seems to represent the Wanniya chief, or the present Vadda chief, as confirmed by our ethnographic studies. It is evident that the term 'Wanniyaetto' first appeared (Stegeborn, 1993) in connection with the formation of the 'Wanniyaetto Trust' by Dr Wiveca Stegeborn in 1993, the International Year dedicated to the World's Indigenous People. Notably, Stegeborn's publications prior to 1993 referred to 'Vadda' rather than 'Wanniyaetto' (Stegeborn, 1988, 1987, 1985a, b, c, d).

The term 'Wanniyaetto' is rooted in the leadership of the current chief of the Vadda community, known as Uru Warige Wanniya, while 'aththo' serves as a term of respect for the leader. In either case, it refers specifically to individuals, rather than representing the entirety of the community. It is worth mentioning that leadership structures also exist within each community, including Dambana, Rathugala, Pollebedda, and Hennanigala, all recognised as distinct groups of Vadda settlements (de Silva and Punchihewa, 2011). Typically, the Vaddas of the island are represented by Uru Warige Wanniyalaetto of Dambana, although many Vaddas in other communities do not subscribe to the concept of centralised leadership. The reason for this disunity dates back to November 9, 1983, when the Vaddas' ancestral forest territory, spanning approximately 51,468 ha, was designated as Maduru Oya National Park. This sudden legal reclassification deprived their traditional way of life. Uru Warige Thisahamy, was the first proponent of centralised leadership within the historically fragmented Vadda community. He opposed the

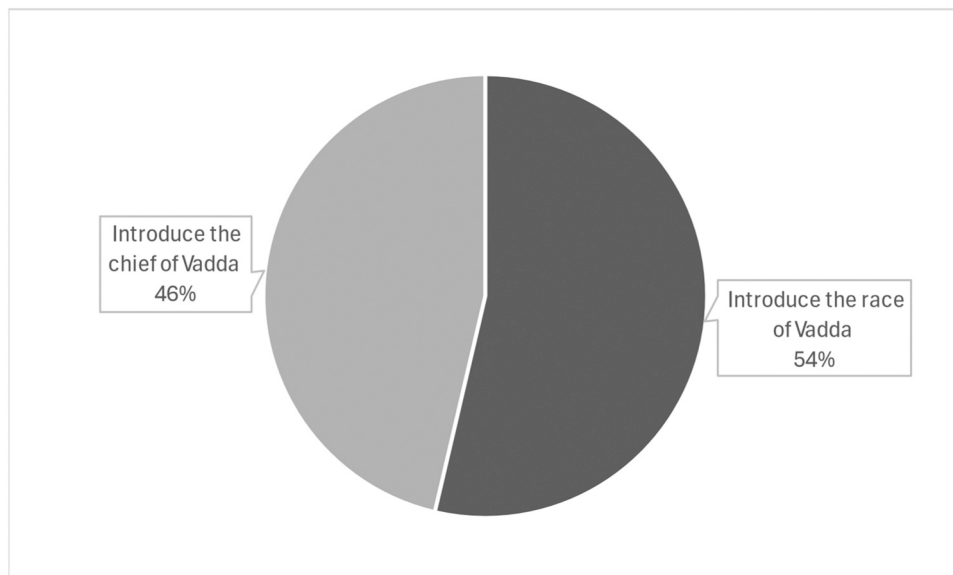


Fig. 6. Ethnographic fieldwork findings on the meaning of the term 'Wanniyalaeto'.

establishment of 'rehabilitation villages for Vaddas,' resisting imposed resettlement measures. This opposition is a key reason for the disintegration of the Vadda community (Stegeborn, 2004).

Our ethnological fieldwork demonstrates that there is a lack of consensus within the present Vadda community regarding the usage of the term 'Wanniyawetto' (Fig. 6). While 46 % of respondents concur that the term denotes the chief of the Vadda community, the remaining participants argue that 'Wanniyawetto' serves as a synonym for the Vadda community in its entirety. The Vadda chief—Uru Warige Wanniyawetto, however, maintains that it is his personal name, which some people now mistakenly use as a synonym for the Vadda community as a whole. He claims that this term came to be used since he assumed the role of chief. Unfortunately, this term is now frequently used as a synonym for the Vadda community in research papers and a section of the younger generation of Vaddas identify themselves as 'Wanniyawetto'.

Such misunderstandings and misinterpretations are detrimental to understanding the Vaddas and preserving their cultural and historical identity. The term 'Wanniyawetto' and its contested meanings illustrate forcibly induced views of the Vadda people distorting their own perception of their historical identity due to external influences leading to internal disagreements among themselves.

### 3. Discussion

The Vadda community stands out as one of the most extensively studied indigenous communities in Sri Lanka, at least since the nineteenth century. Goonathilake (1960a, b, 1970) records nearly 250 entries of Vaddas in bibliographic writings in European languages up to the 1970s (see also Bandaranayake, 1993:11), and the list is likely to have increased considerably since then. Brow's (1978:3–39) critical analysis of ethnographic studies on the Vaddas is still considered among the best of such analyses ever undertaken (Bandaranayake, 1993:11). Gunawardhana and Adikari (2010) recently published a comprehensive volume on Vadda communities inhabiting various regions in the country. To their credit, they have attempted to cover various aspects of the Vaddas. This Sinhala publication, however, has little appeal to non-native speakers.

The most exhaustive overview of Vadda studies is, however, found in Deraniyagala (2004:381, 427–28). His analysis is based on the key publications of Nevill (1868, 1886, 1887), Parker (1909) Sarasin and Sarasin (1893) Seligmann and Seligmann (1911), and Spittel (1927, 1950, 1957). It was aimed at using them as an analogue for interpreting cultural and biological remains of the prehistoric period on the island. He also critically assessed the anthropological (Kennedy, 1965) and morphometric studies (Lukacs and Kennedy, 1981) of the modern Vaddas and archaeological samples of the Mesolithic man. Based on these studies, he also wanted to reconsider the hypothesis that argues for the cultural and biological continuity of the Mesolithic man through the Vaddas to the present communities of Sri Lanka (Deraniyagala, 1939, 1953a, b; Kennedy, 1965:183), for which he found little convincing evidence. Allchin (1958) also used Seligman's (1911) Vadda ethnography as a source of analogy for interpreting the prehistoric record, before Deraniyagala (2004) used them to good effect. The biological anthropological dimensions of the Vaddas have been explored since the early twentieth century by scholars such as Volkow (1903), Davy (1821), Virchow (1888), Thompson (1889), Sarasin and Sarasin (1908), and more recently by Marett (1937) and Wijesekara (1987a, b). With the attribution of distinct physical characteristics to the wild Vadda, scholars began to delineate the *Veddoid* type (e.g., Wijesekara, 1982) as 'distinct physical anthropological entity' (Virchow, 1885; Sarasin and Sarasin, 1892, 1893; Hill, 1941; Stoudt, 1961; Brow, 1978:3–39; Deraniyagala, 2004:364), juxtaposing it with the Sinhala populace without thoroughly examining potential overlaps. These early physical anthropologists and colonial civil servants were the pioneers in labelling the Vaddas as 'aborigines' of Sri Lanka (see for example Deraniyagala, 2004:367). However, their narratives were notably challenged by

Parker (1909), a colonial civil servant who, with empathy, scrutinised the fate of the Vaddas, shedding light on the intrinsic elements of the European concept of the wild man (see also Brow, 1978:3–39; Obeyesekere, 2003:275).

After Deraniyagala (1939, 1955, 1958a, 1960, 1963a, b, c, d; 2004), Kennedy (1973), Deraniyagala and Kennedy (1972, 1989), who argued for a biological continuum from the Mesolithic man to the Vaddas, Hawkey (2002), Hawkey and Kennedy (1993), Hill (1932, 1941), Kennedy et al. (1971, 1987), Kennedy (1965, 1975), Kulatilake (1996, 2020), Pathmanathan and Wikramanayake (1993), Peiris et al. (2011), and Wikramanayake and Wikramanayake (1992) undertook serious physical anthropological studies using cutting-edge technologies and interdisciplinary approaches to unravel their evolutionary history with greater precision. Genetic connections have been explored by Ellepola and Wikramanayake (1986), Ellepola (1990), Fernando et al. (2023), Illeperuma et al. (2010), Majumder (2006), Ranasinghe et al. (2015), Ranaweera et al. (2014), Roberts et al. (2018), and Welikala et al. (2024). Apart from these writings, the majority of studies concerning the Vaddas have primarily taken the form of administrative records (Denham, 1912), anecdotal narratives (de Zoysa, 1881; Mesurier, 1886; Rolleston, 1884; Stevens, 1886; Streumer, 1997; Virchow, 1885), or descriptive accounts; for example, Moszkowski (1840), Gillings (1853) Tennent (1860), Deschamps (1892:334–335), Lewis (1914) Spittel (1927, 1937, 1950, 1957), Wijesekara (1982, 1987a, b) and Punchihewa (1989). Unfortunately, nothing much is known about the extensive anthropological and morphometric studies undertaken on about 3585 people from fifty different locations by Marret and Wijesekara between 1937 and 1939. This data is said to be stored in the National Museum, Colombo (Wijesekara 1987b: 42, 43).

To date, the most systematic anthropological fieldworks are those conducted by Seligmann and Seligmann (1911) and Sarasin and Sarasin (1908). These works have laid the groundwork and served as inspiration for much of the subsequent scholarly undertakings (for example, Allchin, 1958; Deraniyagala, 2004; Chandraratne, 2016), drawing upon the ethnographic documentation of the Vaddas as direct historical analogies linking the Vaddas with the Mesolithic man.

Despite the extensive literature available on the Vaddas, as cited above, our understanding of the Vaddas, including their biological and socio-cultural aspects, remains patchy and often contradictory, primarily due to ambiguities in sampling methods and certain persisting misunderstandings. What we possess, in reality, is "an accumulation of fragmented information", largely centred around a few Vadda communities, with most data collected from a small sample of the 'Vadda' (see Bandaranayake, 1993:11) and what we might call 'mixed-Vadda' populations or from popular Vadda destinations such as Dambana, Rathugala, and Hennanigala. For instance, the majority of morphometric studies rely on limited sample sizes drawn from specific Vadda communities. Similarly, the archaeological sample that has often been used to suggest a biological and cultural continuum from the Mesolithic man to the present is also fragmentary and inadequate (Kennedy, 1965:37; Deraniyagala, 2004). However, archaeological samples from the Early Iron Age and earlier periods are often interpreted to exhibit closer affinities with Vaddas. Furthermore, measurements of modern-day Vaddas conducted by Hill (1932, 1941, 1945), Marret (1937), and Wikramanayake et al. (1992) demonstrate significant variations. This discrepancy is likely attributable to the fact that these studies examined distinct groups of Vaddas inhabiting diverse ecological zones and maintaining varying levels of interaction with agricultural communities, which does not appear to have been adequately considered.

Based on this meagre dataset, broad generalisations about the Vaddas have been made (see also Bandaranayake, 1993), primarily drawn from anthropometric and genetic studies, suggesting that the Vaddas are a hybrid population descended from the *Homo sapiens balangodensis* or the Mesolithic man (Deraniyagala and Kennedy, 1989). According to Wijesekara (1987b:17), the Vaddas are admixtures of Negrito (also confirmed by Weber [(1998)], Australoid and Mediterranean types, as

well as *Yakkhas* and *Nagas*. Some studies, however, propose that the Vadda communities are more closely linked to ethnic groups from India (Majumder, 2010). In addition, Thompson (1889) expressed concern regarding the shared origins of the Vaddas and South Indian aboriginal populations, drawing upon anthropometric data as evidence. The contradictions noted could be attributed to disparities in sample sizes and the common practice of treating the heterogeneous Vadda community as a uniform, homogenous group.

The lack of clarity in these studies, according to Bandaranayake (1993:11), is rooted in the ambiguity of the definition and the identity of the Vaddas, their distribution patterns, and the extent of the cultural and bio-ethnic congruity and heterogeneity among various Vadda communities, which are necessary for distinguishing them from the Sinhalese and Tamils. Terms such as '*Wanniyaetto*' and the lack of clarity of '*Waruga*,' the clan affiliation, have further complicated this situation. Clarification of their ethnic identity in relation to other communities is imperative for placing them in the cultural and historical context of Sri Lanka. Viewed through rigorous scientific inquiry, the epistemological exploration of the Vadda history serves as a foundational platform for conducting detailed, field-oriented research into the nuanced complexities of the Vadda ethnicity and historical narratives. For example, beyond the mere descriptive accounts of their monograph, Seligmann and Seligmann (1911) were concerned with establishing two interconnected hypotheses, as suggested by Brow (1978:16). Firstly, they aimed to demonstrate that the contemporary 'pure Vaddas' are the indigenous inhabitants of Ceylon. Secondly, they sought to assert a shared lineage between the Vaddas and hunter-gatherer tribes in India. Recent research conducted by Welikala et al. (2024) appears to have validated this hypothesis. Such investigations should aim to uncover any potential interconnections among the geographically dispersed and residual Vadda populations. However, Wijesekara (1982:22) pointed out, even in the 1980s, that *"there are [were] no true Veddass to see. The real Veddass have vanished."* This is while Brow (1978: 16), citing the Seligmanns, mentions the presence of '*reasonably pure-blooded*' Vaddas in the Danigala region, *albeit* having adopted many Sinhalese customs, such as cultivation. Such contradictions persist in the discourse on the Vaddas.

Bandaranayake (1993:14) has rightly opined that the preconception of cultural and racial homogeneity of the Vaddas has led to overlooking the highly likely heterogeneity of the Vaddas in the scholarship. This assumed or 'forcibly conceived homogeneity' and historical continuity stemming from chronical legendries (Mahavamsa Ch. 7:10–67; Parker, 1909) are likely to have influenced the cultural and biological continuity observed in the archaeological sample as well (Deraniyagala and Kennedy, 1989). Nevertheless, serious limitations of both the modern anthropological sample of the Vaddas as well as the archaeological sample seem to have affected these conclusions. Kennedy (1965:37), for example, notes that *"small samples often have been considered applicable to the Vadda population as a whole"* (see also Kennedy, 1971). Additionally, doubts persist regarding the authenticity of the Vadda skeletal remains obtained, with Kennedy (1965:183) cautioning the validity of samples acquired through financial transactions, except for those obtained by Sarasin and Sarasin (1926) and Hill (1941). Consequently, Deraniyagala (1980:176–177) remained unconvinced about the biological continuity from the Mesolithic population to Vaddas, citing the inadequacy of skeletal samples as a key concern. This demands a critical review of existing knowledge claims about the Vaddas as well as the Mesolithic population of Sri Lanka.

Central to anthropological investigations concerning the Vaddas are evidently fragmented residual communities, inhabiting diverse environments in the dry and intermediate zones, who engage in different levels of subsistence strategies, ranging from hunting and fishing with traditional tools like the bow-and-arrow to full-fledged peasant farming. Ascertaining the extent of similarity and divergence among the different aspects of material culture and social structures observed within these communities, as well as their perceptions of their own identity and that of others is critical to comprehending the Vaddas as a community and

their affiliation to other ethnic communities. The ethnographic studies undertaken for this study seem to suggest that the perception of Vadda's is likely distorted by forcibly enforced views such as '*Wanniyaetto*'. The displacement of Vaddas due to the Gal Oya scheme and the Mahaweli development project seems to have fragmented the community not only physically, but also culturally leading to an identity crisis. Wijesekera (1987b:49) records how their lands were taken against their will and not even compensated as they were promised. Henebadda Vaddas pleaded that authorities do not take away their land, claiming they might die without their traditional lands and subsistent practices (Wijesekara 1987b:146). Disappointed Vaddas gave up farming, and even populations decreased. He records that the younger generation lives in desperate conditions (Ibid.). That is how a once economically self-sufficient community was forced into dependency and desperation. The displacement of Vaddas from their traditional villages and livelihoods led to their economic displacement. Attanapola and Lund (2013) explore how the Vaddas were forced to take up new livelihoods and responded to cultural tourisms. According to them, the Vaddas are negotiating their cultural identity amid pressures from development schemes, contemporary policies, and adapting to modern socio-economic conditions (See also Amarasinghe, 2024). Childe (1936) famously said that man was often forced by circumstances to act the way he did throughout history, rather than his own choices. The Vaddas are, therefore, no exception.

With regard to the Vaddas living in various socio-cultural and geographical conditions, however, we are yet to fully understand how they coped with new challenges and what long-term consequences they have had due to coming into ever closer contact with mainstream society. It is only through a comprehensive survey of the existing Vadda groups, encompassing those whose identities may be obscured or assimilated due to interactions and intermarriages with Sinhalese and Tamil communities, that we might be able to seek answers to these unanswered questions.

The same critical observation can be made about the genetic studies conducted on the Vaddas thus far that echo those made regarding research in the cultural and physical anthropology of the Vaddas. While somewhat less extensive in scope, genetic studies implicitly claim greater objectivity and precision of observation. Nonetheless, the outcomes thus far exhibit similar shortcomings in terms of definition and sampling, as previously highlighted. Given the loss of the true Vadda identity within the modern cultural and economic set up, the conclusive findings, despite using sophisticated analytical and statistical methods in genetic analyses, merely indicate distinctive genetic characteristics within specific contemporary localised social groups. These groups typically comprise small, interbreeding communities with low social and geographical mobility. Notably, as far as we are aware, there has been a lack of efforts to explore the similarities and differences among the Vadda groups or with other populations, aside from studies relying on limited and pre-determined samples.

A thorough examination of variations among the Vaddas and the non-Vaddas, along with their biological and cultural continuity in Sri Lanka, can only be achieved through a comprehensive study of genetic markers across a true representative sample of cultural and social groups spanning various geographical regions of the island.

#### 4. Conclusion

The Vaddas, like all communities, are subject to change over time. While they often possess deep-rooted traditions and cultural practices, they are not static entities immune to external influences or internal dynamics. The Vadda community, therefore, evolves and adapts, reflecting both the resilience and fluidity of their cultural identity. Several factors contribute to the evolution of indigenous cultures, including urbanisation, environmental shifts, political forces, socio-economic changes, and even globalisation at large. When examining the biological and cultural evolution of the Mesolithic populations of the



island, it is essential to restrict the field of analogy to societies at a similar level of subsistence, as suggested by Clark (1953). Additionally, greater significance should be attached to analogies drawn from societies existing under ecological conditions similar to those reconstructed for the prehistoric cultures under investigation, rather than those adapted to markedly different environments. Willey (in Tax et al. 1953:299) advocates for the selection of cultures at the same general level of technological development, possibly existing under similar environmental conditions. As advised by Childe (1956), an analogy drawn from the same region or ecological province is likely to provide the most reliable insights. Deraniyagala (2004) has critically evaluated these conditions before using the Vaddas as an ethnographic analogy for interpreting the prehistoric archaeological record of Sri Lanka. Similar caution is warranted in all such academic endeavours as André et al. (2024), has recently illustrated that even within the same cultural population, genetic adaptations may vary to enhance survival in diverse and challenging environments.

A variety of limitations were also observed in both biological, anthropometric, and genetic analyses, as they did not specify whether the observed similarity stemmed from a shared ancestry or adaptations to comparable environmental conditions. Therefore, it is crucial to exercise caution when making such parallels, especially when applied to the culturally, linguistically, and geographically diverse Vadda community, as these comparisons may not represent the entire population.

This paper underscores several preconceived concepts and assumptions as well as methodological limitations that undermine the comprehension of the Vadda community. The assumption of cultural and racial homogeneity of the Vaddas overlooks potential genetic diversity and the influence of varied subsistence strategies among those living in distinct ecological zones. Additionally, a lack of consensus on their clan or Waruga affiliations further complicates our understanding of their social structure. Misinterpretation of terms such as *Wanniyaletto* enforced upon them by outsiders distorts their cultural identity and the diversity that the community represents. Irrational development projects, disregarding historical realities, have displaced Vaddas both economically and culturally further eroding their self-esteem and identity which will have a lasting impact on the community. Limitations in both modern and archaeological sample, challenge the assumed cultural and biological continuity of the Mesolithic population through the Vaddas to present ethnic communities of the island, as well as their connection to various ethnic groups in South Asia. To move forward, there is an urgent need for fresh research on the Vadda community that is grounded in robust methodology, adequately sized samples and conducted without preconceived biases. Such research must acknowledge the cultural and geographical diversity within the Vadda population and aim to produce a more accurate representation of their distinctive heritage.

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## CRediT authorship contribution statement

**Wijerathne Bohingamuwa:** Writing – review & editing, Writing – original draft, Validation, Supervision, Resources, Methodology, Investigation, Formal analysis, Conceptualization. **Kalangi Rodrigo:** Writing – review & editing, Writing – original draft, Validation, Software, Resources, Methodology, Formal analysis, Conceptualization. **Harendralal Namalgamuwa:** Writing – review & editing, Resources, Methodology, Investigation, Conceptualization.

## Declaration of Competing Interest

The authors declare that they have no known competing financial

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## Research data for this article

Due to the sensitive nature of the questions asked in this study, survey respondents were assured raw data would remain confidential and would not be shared.

*Data not available / The data that has been used is confidential.*

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