

ASIAN ALPINE E-NEWS

Issue No 58. December 2019



5700~5800m peaks in the headwaters of the upper Mekong River
Photo: Nathan Dahlberg NZ

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2019 Lachama Khola Expedition

A report on the exploration and unclimbed peaks of the South Lachama
Valley in Western Nepal

27th September – 27th October 2019

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The upper reaches of the South Lachama Glacier indicating the true PK 5822

Supported by the Mount Everest Foundation, the Montane Alpine Club Climbing Fund,
the Julie Tullis Memorial Fund and the Austrian Alpine Club (UK)

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Summary:

Over the period from 27th September to 27th October 2019 our party of six Alpine Club members travelled to Nepal to explore the south Lachama Valley in the Changla Himal and attempt one or more unclimbed peaks. The team assembled in Kathmandu on 28th September before taking two domestic flights *via* Nepalgunj to the remote hilltop town of Simikot. From Simikot we trekked north for five days up the Chuwa and Dojam Kholas following an arduous track, made treacherous by late monsoon rain and large numbers of descending livestock, to reach a base camp at 4,348m at the junction of the north and south forks of the Lachama Khola. A more convenient advance base camp was then established just short of the complex terminal moraine of the south Lachama Glacier at 4,585m on 7th October. From this camp the team made exploratory forays both to the pass leading south, to what we had believed was our objective peak PK 5822, and eastwards in an attempt to access the glacial headwall and our secondary objective. During these forays it became increasingly obvious that the photograph we had been given depicting PK 5822 (now labelled as False PK 5822) was in fact a lesser peak estimated from Google Earth satellite images to be ~5,590m. The actual PK 5822 peak was now believed to be our secondary objective at the head of the glacial cirque and was relabelled True PK 5822.

Guarded by extensive and complex boulder fields, access to the glacier proper was awkward and time-consuming, with the preferred route being the true right lateral moraine. Closer inspection of the ice-fall leading to True PK 5822, however, questioned the wisdom of attempting this peak with the limited time at our disposal, leading us to focus on establishing a camp on the pass due south of advanced base camp and beneath False PK 5822. Having made this decision, the party relocated to a high camp at 5,120m just below the pass on 14th October after several reconnoitres to find the optimal route over the intervening complex boulders. Once at this pass it was difficult to see a reasonable route up the west face of False PK 5822 so we elected instead to attempt one or more of the rocky outcrops on the ridge leading westwards from the pass. Snow-covered boulder fields made even this simpler approach time-consuming, but once on the ridge proper a steep snow-plastered wall defeated our attempts to reach the highest point. We aborted the attempt at 5,320m, just 20m below the summit.

Introduction:

Having visited various parts of the Indian Himalaya numerous times over the last ten years it was time for a change of scene and several friends suggested that we should go to the Nepalese Himalaya. The problem was that I did not know the country that well and was undecided where best to focus our approach. Fortunately, Julian Freeman Attwood, a frequent visitor to Nepal with an abundant fount of knowledge, generously provided a number of suggestions based on areas that he had visited in the far west of the country. A recent publication by Julian has summarised some of his experiences.¹ After talking with Mick Fowler, who in 2015 successfully made an impressive ascent of Gave Ding from the north,² we decided to explore a region of the Changla Himal centred on the southern arm of the Lachama Khola. Julian had visited this area in 2011 when his team were defeated by poor weather while attempting Gave Ding from the south.³ As a result of this visit, however, he

was able to provide us with a photograph of a peak labelled as PK 5822 on the south rim of the Lachama valley that appeared to be a reasonable objective for our party. A more detailed analysis of Google Earth satellite pictures supported the feasibility of this objective and indicated the plausibility of a second objective at the head of the glacial cirque (see Appendix 1b).



The team (almost) ready for action at ABC (from left: Derek Buckle {leader}, Steve Humphries, Lorna Earl, Drew Cook, Nick King, Mike Fletcher)

Itinerary:

The journey to and from Base Camp *via* the Chuwa and Dojam Kholas:

The 45 minute flight from Nepalgunj in a 12-seater Twin Otter was an interesting affair. After attaining a height of about 3,600m we essentially hugged the mountain tops of the Himalayan foothills before hardly descending to the short, sloping runway at the hilltop town of Simikot. On arrival with our Sirdar around midday on 1st October we were united with the rest of the support team; two local porters, the two muleteers and the twelve mules that were to carry all of our food and equipment to our base camp in the



The Twin Otter at Nepalgunj

Lachama Khola valley. Before leaving the UK we had predicted that this would be a four day trek, but a late monsoon and local herders descending from the high pastures with their

animals made the well-defined track slippery and treacherous. As a result the time increased by a further day.



The team leaving Simikot

Leaving Simikot after a brief lunch we began the trek along a well-defined path to make a steep, 500m descent to the Ghatte Khola before climbing to a campsite at 2,829m by the side of the track overlooking the village of Kharpunath. It was not one of the marked camp sites on the route but at least it was clean and adequate for a one night stay. Leaving relatively early the next day we descended another 500m to the Chuwa Khola before once again climbing uphill parallel to the river on a very muddy track. *En route* we passed many small encampments and were slowed by numerous local herders bringing their animals down from the high pastures before the onset of the winter snows. Eventually we halted at another improvised camp site at ~2,950m where it proceeded to rain for much of the night. It was not a very salubrious site and we were pleased to get away early the following day. Climbing steeply past many small encampments we again encountered large numbers of descending animals, adding to the feeling that this was a mass exodus from the upper valley. Eventually we camped on a muddy area at 3,560m having covered some considerable distance since leaving Simikot. Indeed, the total journey is some 45km and by now we were a little over half way.



One of several bridges en route



Nick at the entrance to the Lachama Khola

Once more it rained a lot just after setting up camp and this persisted for much of the night. Fortunately the weather was considerably better when we awoke on the 4th October although initially the path continued to be steep and muddy as it meandered through trees. Eventually the valley opened out with the path becoming less undulatory and more level as we reached the entrance to the Lachama Khola Valley where we made our fourth camp at 4,017m. This was by far the best camp site so far and a marked contrast to those that had gone before.

It remained fine overnight, albeit rather colder now that we were a little higher, and there was no cloud cover. With only a short day ahead we had a lazy start before trekking up the right bank of the Lachama Khola to where it branched north and south. It was our intention to continue further at this point, but with the muleteers having arrived in advance of the climbing party the mules were already unloaded by the time that we arrived and the main tents were already erected. It was *a fait accomplis* so this was to become base camp at only 4,348m. While it was a comfortable spot at the confluence of the two Lachama rivers we would need an advance base camp considerably further up the valley in order to carry out any effective exploration.



Lorna making the awkward river crossing near ABC

After spending thirteen days at or above base camp we began our descent to Simikot. Again we chose to do so over five days, which in retrospect was a good decision as this allowed us to fully enjoy the now changed environment. The track was dry, there were no animals



ABC with False PK 5822 left of centre

descending and the sun shone throughout. It was sheer delight and a relaxing end to the expedition. It also allowed us to return by a variant of the route of ascent in that before making the long descent and re-ascent to Simikot we followed close to the Chuwa Khola to reach the village of Kharpunath where we made our final camp just west of the habitation and a little way above the river. From here a rising, well-defined track led almost directly to Simikot some 800m above.

Exploration and climbing in the South Lachama Valley:

It was evident from the photographs that we had been given that base camp ought to have been higher in the valley, but it was not to be. Thus, on the 6th October we continued further up the southern Lachama valley to what was clearly Julian's earlier camp site. Nevertheless, on the 7th October we chose to go another kilometre or so beyond this site to place our advanced base camp at 4,585m just beneath the terminal moraine. This camp gave a full view to what we later referred to as False PK 5822 (as it soon became clear that this was not the peak marked as 5822m on the Finnish map)⁴ and the pass leading to its west face, as well as offering



Climbing steep moraine to the 5,201m pass

the potential to explore routes to the southern arm of the Lachama Glacier.



Derek with one of the many cairns on the pass

Our first foray was to explore possible routes to this pass, which lay due south of advanced base camp. The initially complex moraine slowly made way for easier boulder fields so that over a period of days we eventually cairned an optimal route to the 5,201m pass. A plethora of cairns bore witness to the earlier presence of others at this pass, although presumably they had not had to contend with unstable snow-covered boulders when they did so. It also seemed unlikely that domestic animals had made this ascent, though by contrast, bear and snow leopard prints showed that wild animals certainly had.

It was not until 14th October, however, that with the help of our high altitude Sherpas we eventually established a high camp at 5,120m in a snow scoop some 80m or so below the pass. Once established in this camp we eventually decided that any attempt on the west face of False PK 5822 (later identified as PK 5703)⁴ would be lengthy and unlikely to succeed under the prevailing conditions. As an alternative we considered attempting one or other of the rocky



High camp just below the pass



Complex boulders leading to the ridge

peaks lying on a prominent ridge to the west of the pass. On the 15th October therefore, four of us set out to investigate this option while Drew and Lorna decided to return to ABC. Once again it was not easy terrain, comprising snow-covered boulders all the way up to the ridge itself. At this point we unfortunately reached an impasse below the final tower when a short impending wall overlain with snow stopped progress at 5,320m, just 20m short of the summit. Following this disappointment we returned for another cold night at high camp prior to relocating back to ABC.

Before finally establishing a high camp below



Nick eying up the 20m impasse at 5,320m



Complex ground beneath True PK 5822

south Lachama Glacier. One attempt to follow close to the glacial outlet itself bore little promise as it was convoluted and hard going for over 2-3km without getting sufficiently close to clean glacier to assess whether it did indeed offer a way forward. An alternative approach *via* the true right lateral moraine (which terminated at 5,100m) offered greater promise, and even the chance of a camp site high up in the ablation valley. However, from neither high viewpoint did a realistic attempt on what we now believed to be True PK 5822⁴ (see Appendix 1b) appear viable on account of the multiple ice-falls that we would have to navigate in order to site a camp within striking distance of the snowy summit. Reluctantly we decided to abandon any attempt on this peak and concentrate on those potentially more accessible from the pass mentioned above.

Now that both objectives that we had considered prior to leaving the UK had been investigated, and discounted, time was beginning to run out and our options were becoming limited. On 12th October, as part of our acclimatisation regimen, we had attempted to get as high as possible on the rocky peaks to the north-east of advanced base camp, but this too ended in failure when it became clear that any potential summit was still a long way off and involved considerable distances over difficult terrain with no obvious



Mike & Nick high on NE slopes above ABC

places where a high camp could be sited.

As a result we all returned to base camp just as bad weather was forecast to find that one of the mules had succumbed to what was thought to be a combination of the cold and eating poisonous plants. It was a sad end to our climbing and time to return to Simikot.

Conclusion:

Far West Nepal remains a remote area to which only a limited number of mountaineers have ventured. Julian Freeman-Attwood is by far the most authoritative exponent who has a wealth of knowledge based on twelve expeditions over the last decade or so. His review¹ is a must for anyone planning a visit. During our visit we were compromised on the approach march by the late monsoon and the return of herders and animals from the high pastures, but our return to Simikot was in sharp contrast. The track was then dry, there were few herders and the sun shone. Under these conditions the Dojam valley is beautiful and the trek a delight. Once at our advance base camp we found the climbing opportunities limited for a party with modest

aspirations and manoeuvring over the interminable moraines was arduous in the extreme. This is not an area for the faint hearted.

Bibliography & Notes:

1. Julian Freeman-Attwood, *American Alpine Journal*, **61**, 82-103, 2019
2. Mick Fowler, *Alpine Journal*, 3-12, **120**, 2016
3. Julian Freeman-Attwood, *Alpine Journal*, 107-116, **117**, 2013
4. Following discussions with Julian Freeman-Attwood on our return to the UK we now both conclude that Google Earth satellite images and the 1:25K Finnish terrestrial maps convincingly show that the peak originally assigned as PK 5822 (now labelled by us as False PK 5822) is, in fact, PK 5703. True PK 5822 lies higher in the glacial system and was originally identified as our secondary objective (see Appendix 1b).

Sponsors & Supporters:

The expedition was supported by the following sponsors to whom we are especially grateful:



Montane Alpine Club Climbing Fund



Mount Everest Foundation



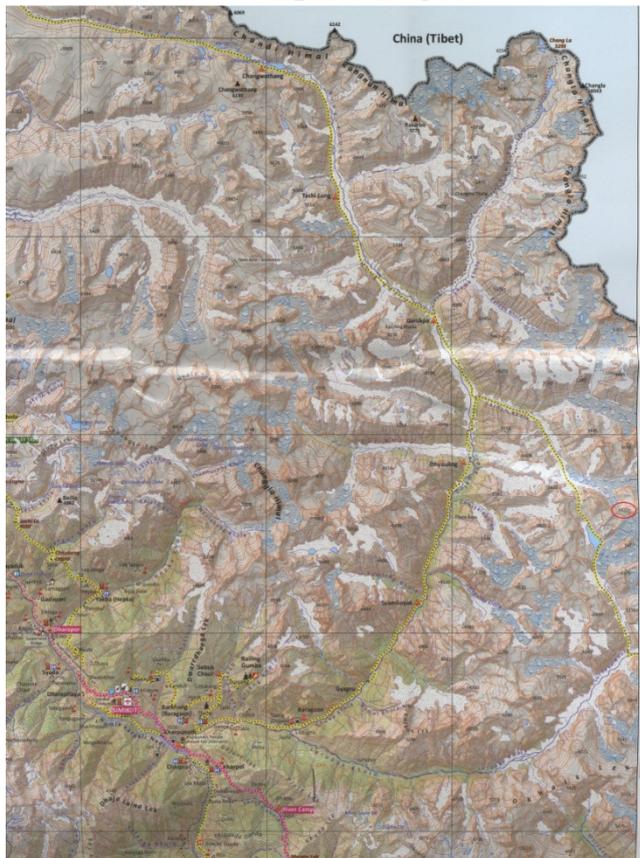
Austrian Alpine Club
(UK)



Montane

Appendix 1

Appendix 1a; 1:150,000 map showing the route to PK 5822.



Appendix 1b; Google Earth satellite image of the South Lachama Glacier with False and True PK 5822 marked (note orientation of north)



The Zhidio Glaciers



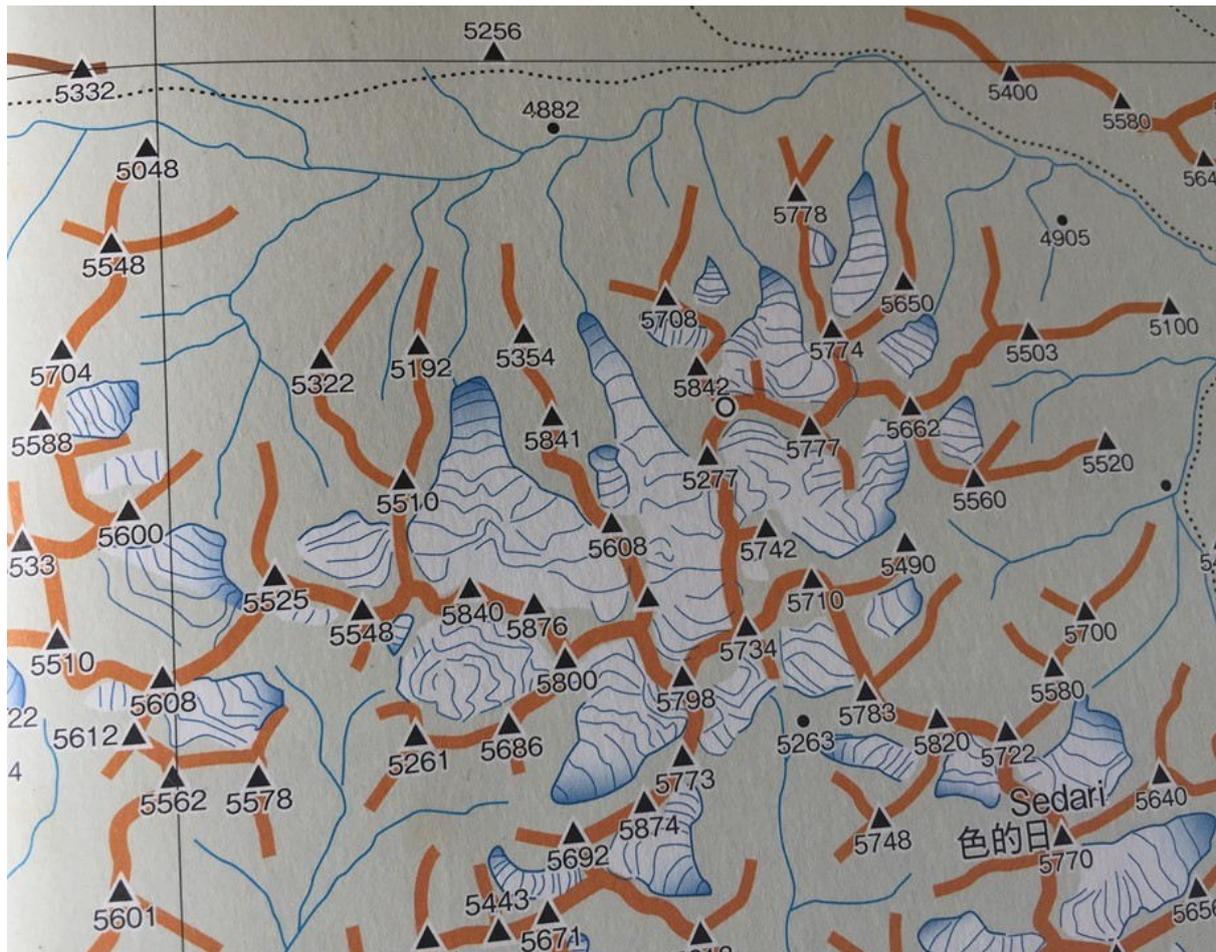
The eastern view of the Zhidio Glaciers as they appear just before crossing the An yang qong chu river below the Riadong la.

Introduction

Subsequent to my article on Karakoram anomaly published in issue 54 of the Asian Alpine E News this year (2019), I have now made a small study of the glaciers in the Zhidoi mountains on the Qinghai Tibet plateau which I visited last year (2018). This study is rather different in that there are no previous visits or studies of the area involved so nothing to base observations on. However the study area is very small compared to the Karakoram so this means that a far larger part of the study area was actually observed. Unlike the Karakoram which has had many satellite image based studies and also a few actual field observations, the Zhidoi Glaciers have had neither so it has been an interesting exercise to look back through satellite time line images to see any changes.

Study area

The Zhidoi Glaciers are based around the high point of peak 5876m at 33°34'24 N, 94°55'54 E, with the closest town being Zhidoi. It is a small isolated glacial system located on the Qinghai/Tibet Plateau with the closest other Glacial area's in the Tanguila mountains to the south and west.



Glacial study area is centred around point 5876m in the centre of this map – courtesy of Tom Nakamura.

History and scope of previous studies.

Resources

Unlike the glacial regions in parts of the former British Empire which have been observed intermittently now for more than 150 years the glaciers of political China have only been under any sort of scientific observation since the mid 1950's although real detailed reports in English surface from the mid 1980's onwards. The Karakoram, Pamir and Kunlun mountains (which all are straddling or in the case of the Kunlun's completely within Chinese frontiers) have had much international interest with the research from numerous European and American sources whereas the Chinese have largely ignored these ranges. Research and observations I have seen from (national) Chinese sources are largely concentrated to the far eastern side of their mountain regions. My own reading of these has been restricted to English language publications from China and there maybe many others only available in Chinese. The Russians had sent clandestine high altitude photo mapping aircraft over China during the 1970's and at an altitude of 20000 m they mapped most of Central Asia. These maps are now available online. Although missing many details, and sometimes very inaccurate with heights and hazy in outline they give a general impression of ground features some 50 years ago. Satellite images from roughly 1984 are also

available online – generally speaking those before the year 2000 are of mixed quality although maybe there are some available to scientific bodies of better quality than I have seen. Currently the Yandex satellite images from Russia provide the amateur with the best and latest imagery and these seem to give very accurate details of ground features – unfortunately they have no time line to observe previous images. Google Earth is generally of a much lower quality but does provide historical images and 3d mapping to help in research. The Chinese military have also apparently mapped topographically the whole of China in 1/50000 scale. Unfortunately these maps remain the sole preserve of the party and military it being a criminal offence for the public to own one in China although I have heard there is a black market trade in them. I have not seen one personally but if they are indeed accurate they would be a primary resource in establishing past glacial conditions in China.

Observations in 2018

Below is a photo study of glaciers we visited in the Zhidoi system.



Recent (post 2016) Yandex satellite imagery of the 5 primary glaciers we observed Photos below will refer to the numbers on each glacier as which one it was taken on.



Fresh snow on top of peak 5778m in July looking South . The majority of the precipitation in the Glaciers falls between spring and autumn and winters are dry.



Looking down the Southern ridge of 5778m , peak centre left is 5774m which is the origin of No 1 glacier. Behind on the right is peak 5710m which is the source of glacier No 2.



Glacier No 1 is approximately 3.5 km's long and 1 km wide and is surrounded by steep peaks.



The lower part of glacier No 1 was debris covered unlike the other glaciers we visited. The Glacier appears to be in regular state with neither recent advance nor regression apparent.



The snout of glacier No 2 is visible below us on peak 5778m. The snow peak centre is 5777m and the rocky peak to right 5842m. No 2 glacier is only 2kms in length but over 2kms wide in its upper portion.



Looking down into the wide upper section of No 2 glacier.



Looking at the south face of 5778m which hangs over No 2 glacier. South and east facing glaciers are all generally much less well developed than the north and west ones.



Looking up valley to the outlet of Glacier No 2 with peak 5777 centre picture. This is the only glacier of the 5 we didn't physically stand on so observations are limited.



Old boulder and moraine fields start appearing almost immediately once one begins up the valley to glacier no 3 – probably dating to the little ice age 150 years ago but perhaps even before that.



No 3 glacier – note the wasted appearance as it pulls away from the mountain walls indicating recession.



The upper neve of glacier no 3 still looks in good shape despite the lower tongue sections decline.



This huge crevasse almost a kilometer long and 50 meters or more deep splits the western upper portion of number 3 glacier in half – process's for forming such a massive split are unknown.



Looking down to the wide neve area with surrounding feeder peaks of No 3 glacier , there is plenty of fresh snow in midsummer – July.



The lower sections of No 3 glacier and some of the smaller hanging glaciers above it – the highest peak 5876m is in the back ground.



Looking North on No 3 glacier at approx 5300m.



On the terminus of No 3 glacier – wasted sides and moraine debris lying higher than the ice plus furrowed hillocks of moraine debris below the terminus are evidence of recent retreat.



No 4 glacier – ice rising on mountain flanks with no moraine debris suggests that the upper glacier is stable.



The upper neve portion of glacier No 4 is quite full as one would expect in midsummer when it receives most of it's snow fall.



View from summit of 5876m. All the glaciers visible in the photo face north wards and have full summer snow levels.



The glaciers further west (separated from the more eastern area we visited by a pass of just under 5400m) – at least 2 of the glaciers in this part of the system are as large or larger than glaciers 3 and 4 which are largest of the glaciers surrounding the highest peak of 5876m.



The glacier facing west below the main peak of 5876m.



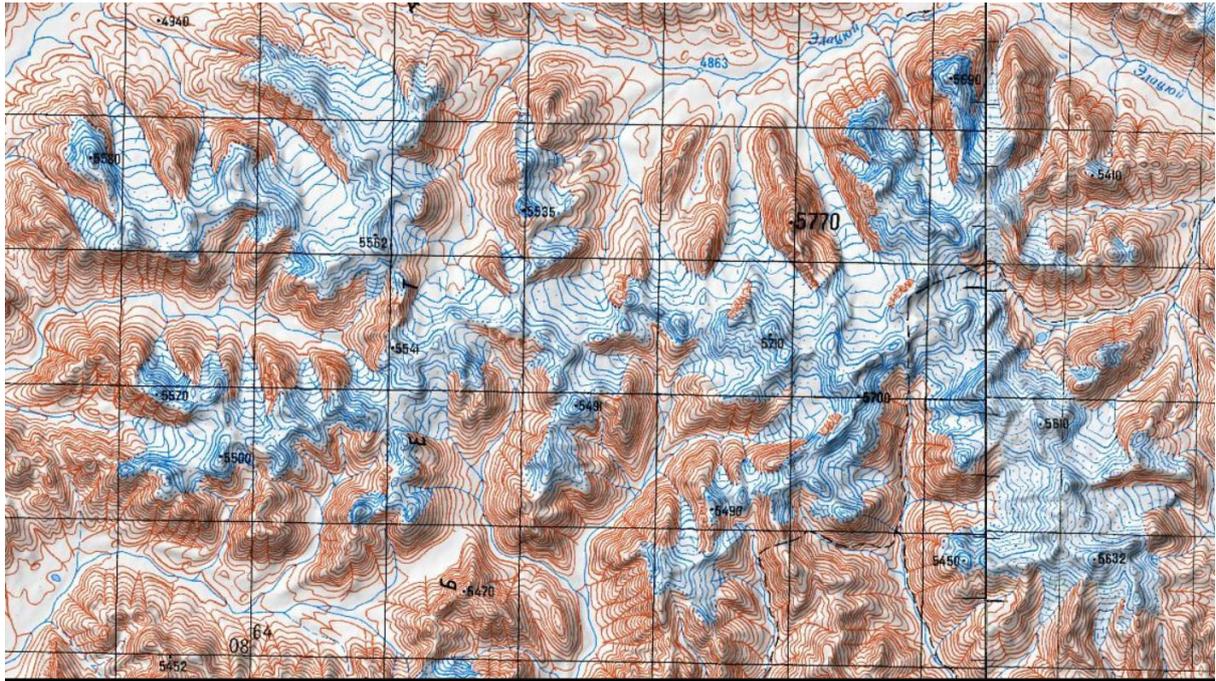
On the col above glacier No 5 displaying some of the feeder peaks for the neve snow.



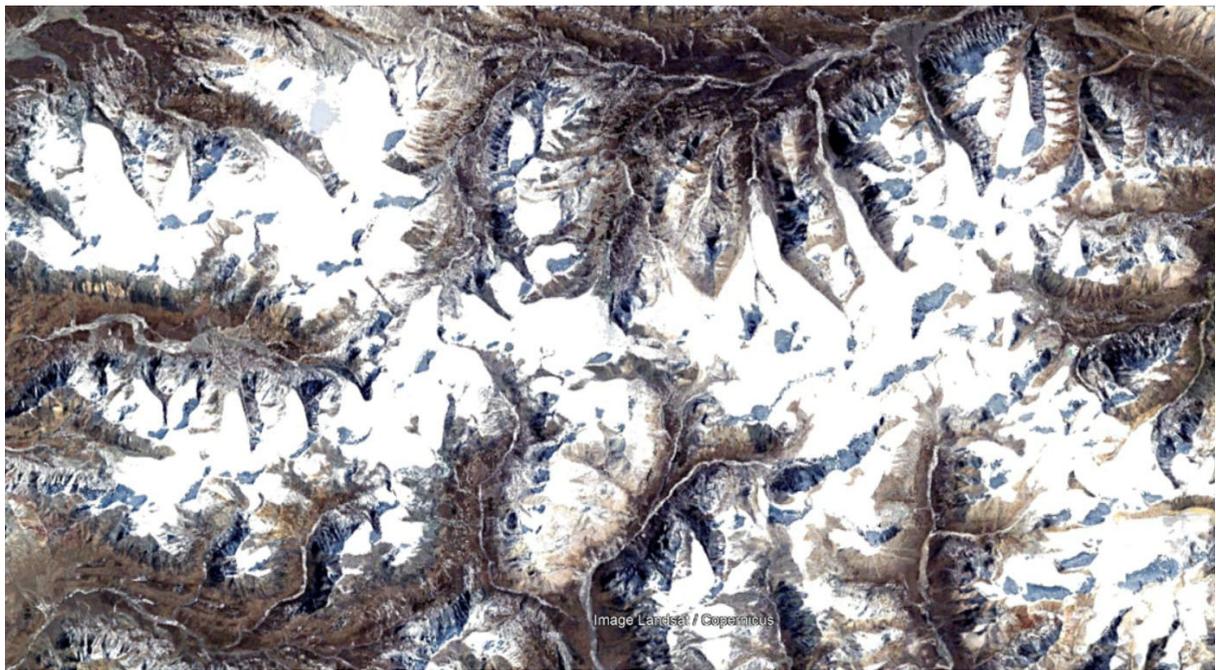
Looking down glacier no 5. Note the glacial lake and also moraines above it. The glacier seems quite stable although retreat from past highs are evident.

Maps and Satellite imagery

Main system



Aerial map from Soviet Russia 1970's

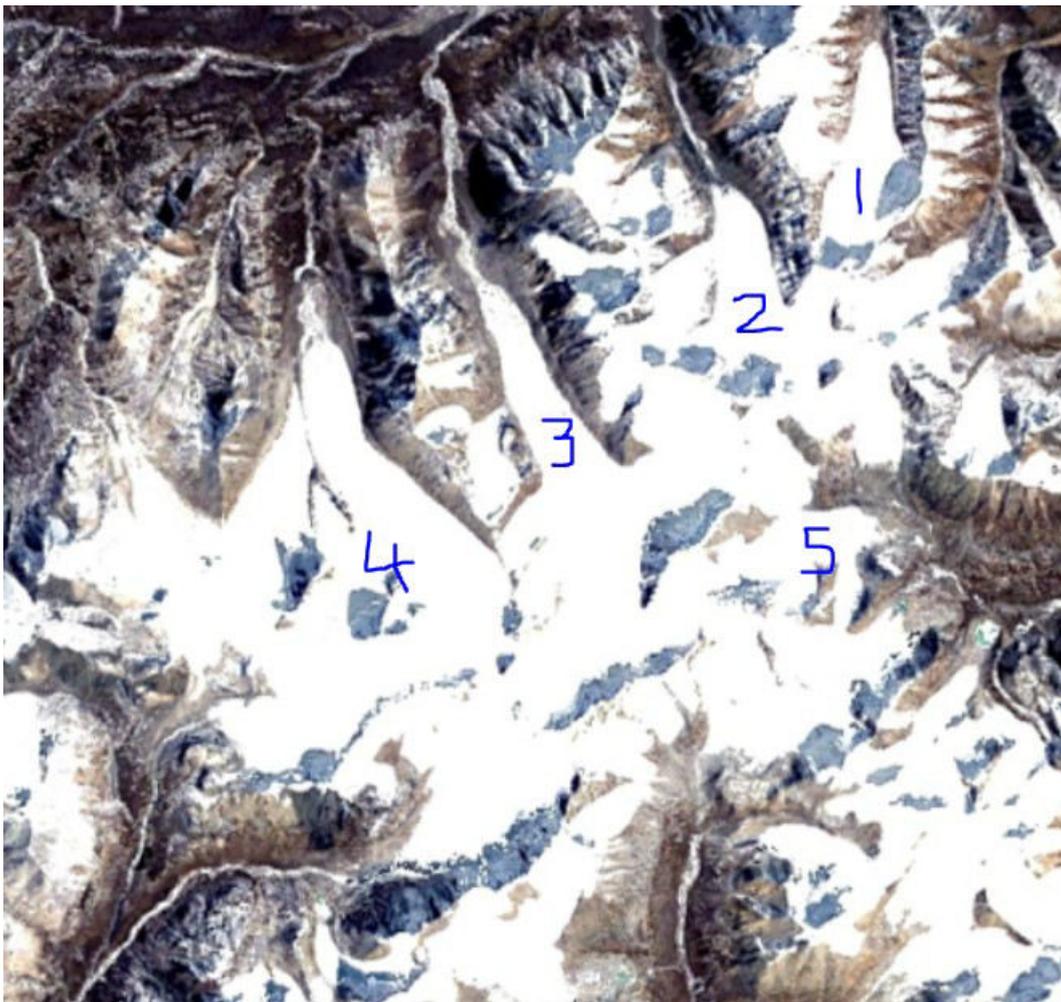


1986 December image, Google Earth (Note fresh snow fall)

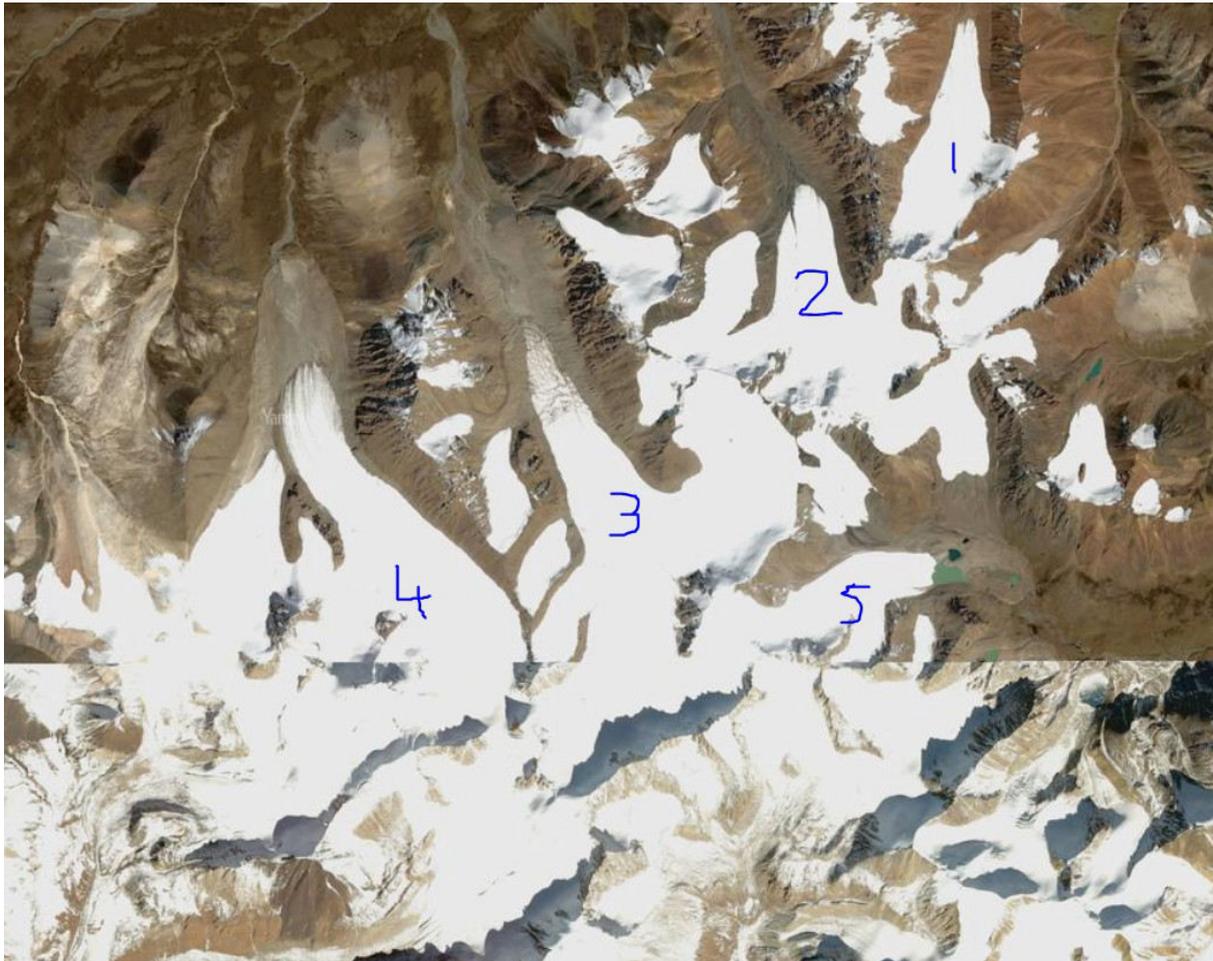


Latest image summer post 2016, Yandex

Close up 5 observed glaciers in the Zhidoi system



Close up 1986 of the 5 glaciers, Google Earth



Close up post 2016, Yandex

note on above pictures – recent snow fall on the murky 1986 Google earth map which is a winter picture where as the Yandex photo is a summer picture and very clear .This has somewhat increased the area in white on the 1986 photo and also length of shadows is quite different with the seasons but all in all I think one can tell the actual Glacial area's in the 2 photos. The Yandex photo definitely has more rock showing indicating generally retreating conditions over the last 30 years.

Conclusion

In July 2018 we visited the Glaciers that descend around peak 5876m and other mountains located at 33'34'24 N, 94'55'54 E approx 70kms SW of Zhidoi. Whilst there we observed and photographed the glaciers surrounding the highest mountains although further west there are also substantial glaciers that maybe even larger in area which we only observed from a distance. Of the Glaciers we saw listed numbers 1 to 5 in the photos above. All the glaciers had been substantially longer in the past, perhaps as recently as the period known as the "Little Ice Age' that saw most glaciers in the region reach there largest post Glacial

maximum (14000 years ago) of size as recently as 100 – 150 years ago – old moraines were evidence of this. Generally the changes haven't been large making it difficult to access some of them.

The glaciers we observed are as below.

No 3 glacier showed evident recent retreat especially around the terminus and wastage away from the rock faces that enclose it. No substantial lateral moraines were visible however. Satellite images confirm this wastage and thinning and visible wasting on the lower glacier over the last 30 years and there has also been a minor retreat of the terminus up valley. The upper neve portion of the No 3 Glacier is largely unchanged although shows some regression with more rock visible.

Glaciers No 2, 4 and 5 looked full in the upper neve sections and relatively stable – satellite images suggested a minor thinning in the last 30 years with a small retreat of the glacier terminus on glacier No 2. On No 4 and 5 glacier's the glacial terminus position's remain unchanged.

Glacier No 1 seemed to be stable from our observations and satellite images tend to confirm this

Satellite observations of the general Zhidoi Glacial systems (ie the total area rather than the 5 we visited) over 30 plus years show that -

Towards the north the glacial areas are largely unchanged on satellite maps showing a minor recession with variations on some individual glaciers however those to the south generally are visibly smaller in area and the recession is more pronounced . This tends to confirm what most satellite studies have shown on glacial systems in Eastern China – Glacial changes are not homogeneous over any one glacial system and there is a North – South and often East - West imbalance where although glacial area is generally declining its far more evident in the SE than NW. Some individual glaciers may even be expanding.

The Tibetan plateau is the heart of many different weather systems and on the South and Eastern sides is heavily influenced by the monsoon which drops most of it's precipitation in the summer – when also most of the ablation occurs. The north and west is heavily dominated by the westerlies which are usually dropping their precipitation in winter. However the Zhiduo glacier's are towards the east of Chinese glacial areas and thus receive most of their snow fall in summer. Additionally precipitation through out the plateau increases with altitude. Precipitation has been rising on the plateau but temperature has also been rising over the eastern parts in particular. Some areas of the Zhiduo glaciers (particularly at lower altitude and on the southern side) have shrunk in recent decades suggesting the increase in precipitation and therefore snow is not as great as the temperature rise. Other factors may also influence glacial development – even subtle long term wind direction changes will place snow in different areas that will change neve

supply. Long term weather patterns with the weakening monsoon and strengthening westerlies may also start playing a part in the glaciers of Eastern China.

Future

Being small in area and largely overshadowed by nearby massifs like Geladaindong which has had research done on it since the 1980's the Zhidoi glaciers are unlikely to garner much attention from the scientific community in the future- many other much more significant glacial areas currently attract no attention. This leaves the area to the amateur observer for anytime in the foreseeable future. Although fast changing by geological standards most glacial change is still relatively small over a human lifetime meaning one normally has to wait some years for change. Visiting the glacial area again in perhaps 10 years would be the first step towards witnessing any glacial movement. For the amateur without quality satellite images and other advanced equipment to rely on (and misinterpret data from!) an actual revisit to the glaciers would be necessary. With close to one hundred photos of the region from this trip a very useful re-evaluation could be done after a 10 year period. Regarding making time lines of past photos and accounts European travellers, adventures and explorers in the late 19th and early 20th century left detailed reports and more importantly photographs which when compared to modern reports and photographs provide useful insight's into changing conditions. When the sites are physically revisited today the information gleaned is of an excellent nature – the Rongbuk glacier on the Tibetan side of Mount Everest and the Baltoro Glacier provide prime examples of how photo's and eyewitness reports from 100 years ago can be compared with the present. Most of the areas photographed in China during initial explorations are rarely visited today (for political reasons alone most are inaccessible) which currently makes this a limited source of information but definitely a great prospect for future research – perhaps not on the Zhidoi system which as far as we know was unvisited before our trip but on many other glacial areas in China.

Appendix 1

Notes on Chinese mountains and glaciers.

China is vast in size comprising of many climatic zones and geological areas – only a fraction of which has seen any research. The majority of research in China has been in the more easily accessible eastern areas with a few small efforts also in the north west of China and Tibetan plateau. South west China where the largest glacial masses lie – ie Karakoram, Pamir and Kunlun mountains remain almost unstudied by the Chinese and here one needs to seek international research sources. As elsewhere most papers have

been composed of satellite image observations and despite pleas in these same scientific papers for more on the ground research little has been done in that regard apart from some very large expeditions usually taking glacial core samples on the Tibetan plateau or Kunlun mountains. Fortunately for the study of the Zhidoi glaciers one of the few plateau areas that has been studied and with permanent weather stations in close proximity is the Geladaindong ice massif in the Tangula mountains and source of the Yangtze river. This is roughly 350kms due west of the Zhidoi glaciers on the same plateau area and they share many of the same characteristics.

General outline of China's glacial systems

The Tibetan plateau which ranges in altitudes of between 3 -5000 meters and the mountains that surround it have often been called the third pole – the largest glaciated area outside the polar circles. The Tibetan Plateau is the highest plateau on the earth and stretches from the southern margin of the Himalayas to the north, to the Kunlun Mountains, the Altun Mountains, and the northern margin of the Qilian Mountains. In the west, the Pamir and Karakoram Ranges, and the east and north-east connect with the western section of the Qinling Mountains and the Loess Plateau. The plateau itself is permafrost – ie the water is frozen in the ground so the actual amount of ice on the plateau are is far greater than observable from the air. The glaciers to the east including the those in the Himalayas's are called maritime glaciers and are largely feed in the summer by the Asian monsoon. This is also when the most ablation or snow loss occurs so although the eastern mountains and Himalayas receive the highest precipitation they have generally much smaller glacial areas than the mountains in the west. The largest glacial areas are in the west , the Karakoram , Pamir and Kunlun . These are continental glaciers – and in the case of the Kunlun polar continental. The main precipitation is in the winter and at high altitude and little or no ablation takes place so although less precipitation takes place than in the mountains in the east more actually turns to ice. The Tibetan mountains in the centre can be effected by both summer monsoonal systems and winter continental systems. The Zhidio system is eastern central with most precipitation falling in summer.

Appendix 2

General characteristics of Geladaindong ice massif of the Tangula mountains.

The Tangula mountain range stretches over 500kms in a general south east to north west direction. Geladaindong at 6621m on the North Western end of the range is the highest known peak in the range which has at least 30 peaks over 6000m and several large glaciated areas and many minor ones scattered throughout the range.

The area surrounding Geladaindong is the largest glacier area in the Tanggula mountains approx 800 square kms in area from the glacial area of the Tanggula range's total glacial area of 2215 km squared. Much of the range remains unvisited by either mountaineers or scientific groups although towns lie on the lower southern reaches and nomads dwell on the plateau during summer. Studies of the Geladaindong massif which is easily accessible from the Xining – Lhasa highway G109 and now the Qinghai – Tibet railway began in the 1980's and with several subsequent studies and also with metrological stations all quite close by (by the standards of Western China) one indeed being in Zhadoi close to the Zhidoi glaciers. It could be said that the Geladaingdong massif is the most well monitored of all the glacial systems on the Tibetan plateau. After 35 years of attention these basic observations have been made.

The Tanggula Mountains serve as a geographical boundary between the continental climate and the summer Indian monsoon over the Tibetan Plateau. The north is subject to continental air masses, whereas the south is influenced by air masses from the summer monsoon.

The Tanggula mountains are on the transitional belt between the subcontinental- and maritime-type glaciers and mean temperature near the snowline is -6.0 to -7.0 °C. Glaciers on the south side of the Tanggula mountains depend mainly on water vapour transported from the south and south-east. The moisture source for the glaciers on the north side is from the east. Precipitation increases with altitude in the glaciated areas. An estimated annual accumulation in the firn areas is about 400 to 600 mm of water equivalent. The Geladaindong region has a cold, dry climate and the glaciers in the region can be classified as continental (some researchers class them as polar continental). The present climatic conditions result in a negative mass budget for most glaciers.

From 1970 to 2009 a tendency for glacial retreat was accompanied by several growing glaciers – overall the glaciers shrunk faster in the period 1970 -1992 than 1992 thru to 2009. During that time there was a tendency to warmer conditions.

Between 1969 and 2002 the surface area of the Geladaingdong glaciers decreased from 889 km squared to 847km squared - minus % 4.8

Interestingly one study found that

“we detected glacier thinning at lower elevations while a simultaneous glacier thickening was observed at higher elevations - The same altitude depended pattern is found for the Tanggula Mountains.

From – “ Glacier mass changes on the Tibetan Plateau 2003–2009 derived from ICESat laser altimetry measurements”

by N Neckel, J Kropáček, T Bolch, and V Hochschild

This is strikingly similar to what we observed – the upper areas of the Zhidoi glaciers were very evidently full whereas the lower parts often shrinking!!

Appendix 3

References

“Different observations regarding glacier mass balance on the Tibetan Plateau remain at odds with one another Recently, numerous studies have examined the mass loss of glaciers in high mountain areas, but their results have been considerably divergent. The glacier mass budget derived from elevation differences is highly correlated to glacier area. However, estimates of glacier area over the Pamir–Karakoram–Himalaya–Nyenchen Tanglha (PKHN) vary from 21000 km³ (Neckel et al. 2014) to 79500 km³ (Gardner et al. 2013) owing to an incomplete glacier inventory or erroneous interpretations of the glacier inventory”

From - Consistent interannual changes in glacier mass balance and their relationship with climate variation on the periphery of the Tibetan Plateau, from the Geophysical journal international by Qiuyu Wang, Shuang Yi and Wenke Sun (please note the authors of the article have put km³ but area would be km² – a typo presumably)

There is now an enormous amount of research on glaciers throughout China , although largely concentrating on eastern China but as these authors of the paper above mention, results have been considerably divergent and conclusions often more so (to the point where results and conclusions often contradict each other – sometimes even in the same article!!). I read about 30 scientific papers on the subject before writing this article and gleaned some generalisations such as a NW/SE imbalance in glacial mass gain/ loss– a general warming and increasing precipitation on the plateau and also increasing precipitation at height (but decreasing precipitation in the eastern Himalayas due to weakening monsoon) that most studies but not all agree on. Much more than that and results are non homogenous. Recently new satellite's have been launched including the GRACE twin gravitational research satellites and the ICE land elevation research satellites but if anything increasing information has lead to even more divergent results!! For the amateur ploughing through all this information it can be disconcerting to realise how little is known and how much is speculation and computer modelling. That been said it makes interesting reading and a quick internet search will reveal many free articles online and associated articles not necessarily devoted to glaciology often reveal the best information. A good starting place is Arctic, Antarctic, and Alpine Research found at

<https://www.tandfonline.com/toc/uaar20/current>

Mount Everest Deaths Statistics by Year (1922-2019)

July 26, 2019July 25, 2019 by Chris M. Merritt



Scaling Mount Everest, the highest peak in the world at an elevation of 8,848 meters, is the ultimate accomplishment for any mountaineer. Hundreds of aspirants from around the world attempt to conquer the mountain every year. Unfortunately, not all of them succeed, owing to the treacherous weather conditions and high altitude.

These adversities make climbing Mount Everest one of the biggest feats possible for a human. The ascent puts your physical and psychological capabilities to the test, and the climb is not an easy task by any means. A single mistake can take your life while attempting to get to the top of the world.

People started trying to get to the top of Everest since 1922. While some have successfully achieved the feat, many of them have ended their lives during the attempt.

Around **300+** climbers have met with their end on Mount Everest till now. The fatality stat provided is the total death count from 1922 to May 2019.

Below is a more comprehensive statistic on Mount Everest deaths.

Year-by-Year Death Toll On Mount Everest

1922

The year 1922 marked the first mountaineering expedition which aimed at making the first ascent of Mount Everest. The expedition was called the British Mount Everest Expedition. Sadly, **7** Nepali climbers lost their lives during the attempt.

(**Source:** Life and Death on Mt. Everest: Sherpas and Himalayan Mountaineering (2001 ed.))

(**Source:**

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(**Source:**

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1924

Two years later was the second British Mount Everest with the goal of achieving the first ascent of Mount Everest. This time too, **4** climbers, 2 each from Nepal and Britain faced tragic death on their way to the summit.

(**Source:** Unsworth, Walt (2000). *Everest: the mountaineering history* (2000 ed.))

(**Source:**
<http://www.adventurestats.com/tables/everestfilities.shtml>)

(**Source:**
<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1934

One British mountaineer died in the year 1934 while attempting a solo expedition. Marice Wilson, the ill-fated aviator attempted to climb Mount Everest to promote his belief that the world's problem could be solved by a combination of fasting and faith in God.

(**Source:**
<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

(**Source:** Unsworth, Walt (2000). *Everest: the mountaineering history* (2000 ed.))

(**Source:**
<http://www.adventurestats.com/tables/everestfilities.shtml>)

1952

A Nepali climber named Dorje Mingma lost his life on Mount Everest during a Swiss Expedition in 1952. The cause of death was reported as falling ice.

(**Source:** Unsworth, Walt (2000). *Everest: the mountaineering history* (2000 ed.))

(**Source:**
<http://www.adventurestats.com/tables/everestfilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1960

In the year 1960, 2 Chinese climbers faced tragic death during the Chinese Mount Everest Expedition. The expedition was the first to successfully ascent Mount Everest via the North Ridge.

(Source:

<http://www.everestnews2004.com/malloryandirvine2004/deathsnorthside.htm>)

(Source:

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1962

One Nepali climber lost his life on Mount Everest in the year 1962. He breathed his last in the Lhotse Face.

(Source: Kohli, M.S. (2000). *Nine Atop Everest: Spectacular Indian Ascent* (2000 ed.))

(Source:

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1963

During the year 1963, the United States' citizen, Jake Breitenbach died being crushed under a serac. Jake was part of the Norman Dyhrenfurth's American Mount Everest Expedition.

(**Source:** Hornbein, Thomas F. (1998). *Everest: the west ridge* (1998 ed.))

(**Source:** Fisher, James F. (1990). *Sherpas: reflections on change in Himalayan Nepal* (1990 ed.))

(**Source:** Potterfield, Peter; Hornbein, Tom (2003). *Everest: Volume 4 of The Mountaineers anthology series*(2003 ed.))

(**Source:**
<http://www.adventurestats.com/tables/everestfilities.shtml>)

(**Source:**
<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1966

The year 1966 saw the death of one Chinese mountaineer. The deceased climber, Ma Gao-Shu was part of a Chinese Everest Expedition.

(**Source:**
<http://www.everestnews2004.com/malloryandirvine2004/deathsnorthside.htm>)

(**Source:**
<http://www.adventurestats.com/tables/everestfilities.shtml>)

(**Source:**
<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1969

Nepali mountain climber Phu Dorje met with his death by falling into a crevasse in the year 1969. He was a part of the Japanese Everest Expedition.

(**Source:** Unsworth, Walt (2000). *Everest: the mountaineering history* (2000 ed.))

(**Source:**

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(**Source:**

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1970

The year 1970 saw 7 unfortunate fatalities. Among the deceased climbers of the Japanese Skiing Expedition, 6 were Nepali while one belonged to Japan.

(**Source:** Unsworth, Walt (2000). *Everest: the mountaineering history* (2000 ed.))

(**Source:**

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(**Source:**

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1971

In 1971, a leading mountaineer of India, Harsh Vardhan lost his life on Mount Everest after being suspended above a crevasse during a blizzard. Harsh, who was military personnel, was a part of the International Expedition of 1971.

(Source:

<http://www.adventurestats.com/tables/everestfacilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1972

An Australian citizen, Tony Tighe met with his death while mountaineering on Everest. He was crushed under a block of glacial ice.

(Source: <http://english.cri.cn/6966/2009/07/03/1361s498617.htm>)

(Source:

<http://www.adventurestats.com/tables/everestfacilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1973

In the year 1973, a Nepali climber Jangbu lost his life on Mount Everest.

(Source:

<http://www.adventurestats.com/tables/everestfacilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1974

A total of 6 mountain climbers lost their lives on Mount Everest in the year 1974. Among the dead, 5 were Nepali citizens while one was a French national. The group was a part of the French West Ridge Direct Expedition.

(Source:

<http://www.adventurestats.com/tables/everestfacilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1975

A Chinese mountaineer lost his life on Mount Everest in the year 1975. Another English climber, who was part of the Bonington's 1975 Everest Expedition, met with his demise in the month of September.

(Source:

<http://www.adventurestats.com/tables/everestfacilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1976

The year 1976 saw the demise of one English climber, who was a part of the British-Nepal Army Everest Expedition.

(Source:

<http://www.adventurestats.com/tables/everestfacilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1978

In the year 1978, 2 mountaineers lost their lives while climbing Mount Everest. One of the deceased was a Nepali citizen while the other one was from China.

(Source:

<http://www.adventurestats.com/tables/everestfacilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1979

A total of **6** mountaineers died on Mount Everest during the year 1979. Among the dead, 3 were from China while one-each were from Nepal, West Germany, and the United States.

(Source:

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1980

In the year 1980, **3** mountaineers lost their lives in the quest of conquering Mount Everest. Among the deceased, one Nepali and an Italian climber belonged to the Italian Expedition. Meanwhile, the other victim was from Japan and was part of the Japanese Alpine Society Expedition.

(Source:

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1981

A Japanese climber of the Japanese Winter Expedition, Noboru Takenaka lost his life on Mount Everest in the year 1981.

(Source:

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1982

The count of Mount Everest bodies reached **11** in the year 1982. Among the dead, 5 were Nepali citizens. Besides, 2 belonged to Japan and the other 2 were from the United Kingdom. Additionally, one American and one Canadian native died on Mount Everest.

(Source:

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1983

During the 1983 climbing season, one Nepali and 2 Japanese climbers lost their lives while trying to conquer the highest peak in the world. All the deceased were part of the Japanese Expedition.

(Source:

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1984

The death toll of Everest climbers reached **8** in the climbing season of 1984. Three Nepalis and 2 Australian mountaineers lost their precious lives. Also, one each from Bulgaria, Czechoslovakia, and the United Kingdom were among the dead.

(Source:

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1985

The year 1985 saw 7 demises while trying to conquer Mount Everest. Among the casualties, 5 were from India. They were all part of the Indian Expedition. Besides, one Spanish and one Japanese climber met with a tragic end during their Everest expedition.

(Source:

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1986

In the year 1986, 4 mountaineers met with their end on Mount Everest. Among them, 2 were Nepalis while the other 2 belonged to Chile and Switzerland.

(Source:

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1987

The Everest death toll in 1987 reached 4. Among the deceased, 2 were Nepalis, one was from Japan and the other belonged to Canada.

(Source:

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1988

Four Nepalis and 4 Czechoslovakian citizens lost their lives while climbing Mount Everest in the year 1988. In addition, 2 more citizens belonging to Japan and France breathed their last on Everest, taking the death toll to **10**.

(Source:

<http://www.adventurestats.com/tables/everestfatalities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1989

In the year 1989, **8** mountain climbers lost their lives on Mount Everest. Among the deceased, 5 belonged to Poland. Meanwhile, 2 of them were Nepali citizens whereas one was from Yugoslavia.

(Source:

<http://www.adventurestats.com/tables/everestfatalities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1990

The count of Everest fatalities in 1990 reached **4**. Amongst the deceased, 2 were Nepali nationals. Additionally, one was a Spanish citizen while the other was part of the Japanese Korean Expedition, who belonged to South Korea.

(Source:

<http://www.adventurestats.com/tables/everestfatalities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1991

In the year 1991, **2** mountaineers, each belonging to Germany and Japan, lost their lives on Mount Everest.

(Source:

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1992

The Everest death toll in 1992 reached **5**. Three of those dead were Indians. Aside from that, one belonged to Nepal and another was from Japan.

(Source:

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1993

In the quest of climbing Mount Everest, 8 people lost their lives in the year 1993. The dead included 4 Nepalis including Pasang Lhamu Sherpa, the first Nepali woman to scale Everest, and 2 South Korean climbers. Besides, one belonged to the United States and the eighth dead body was of a Spanish native.

(Source:

<http://www.adventurestats.com/tables/everestfilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1994

The year 1994 saw **5** mountaineers meet an untimely death at the highest peak in the world. Among them, 2 belonged to Nepal. Additionally, the remaining fatalities included one-each from Taiwan, Italy, and Australia.

(Source:

<http://www.adventurestats.com/tables/everestfatalities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1995

Three Nepali citizens met their final destination on Mount Everest during the climbing season of 1995. Amidst the fatalities, 2 were part of the South Korean Expedition while the remaining one was part of the American Expedition.

(Source:

<http://www.adventurestats.com/tables/everestfatalities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1996

The year 1996 is considered the darkest time in Mount Everest history. During this time, **15** of the climbers faced an untimely death en route to the highest peak in the world. Among the casualties, 3-each belonged to Nepal and India. Besides, 2-each were from the United States and New Zealand. Apart from that, Japan, France, Austria, Taiwan, and the United Kingdom lost one citizen each.

(Source:

<http://www.adventurestats.com/tables/everestfacilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1997

During the 1997 Mount Everest expedition, 3 Russian and 2 English climbers faced an untimely death. Apart from that, 2 more mountaineers who belonged to Nepal met a sad end at the top of the world. Moreover, one South Korean and one German climber lost their life taking the death count to **9**.

(Source:

<http://www.adventurestats.com/tables/everestfacilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1998

Two of the American natives carrying out the Russian/French Expedition lost their lives on Mount Everest during the year 1998. Besides, the death of one English and one New Zealand native took the total death toll to **4**.

(Source:

<http://www.adventurestats.com/tables/everestfacilities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

1999

The year 1999 saw 4 fatalities of climbers belonging to 4 different countries. The casualties were from Ukraine, Poland, Belgium, and the United Kingdom.

(Source:

<http://www.adventurestats.com/tables/everestfatalities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

2000

One climber from Denmark and China each died on Mount Everest in the year 2000.

(Source:

<http://www.adventurestats.com/tables/everestfatalities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

2001

The Everest death toll in 2001 reached 5. The deceased belonged to five different countries namely Nepal, Austria, Australia, Russia, and Hungary.

(Source:

<http://www.adventurestats.com/tables/everestfatalities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

2002

During the year 2002, **3** mountain climbers sacrificed their lives on Mount Everest. Among the deceased, one each belonged to France, Yugoslavia, and the United Kingdom.

(Source:

<http://www.adventurestats.com/tables/everestfatalities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

2003

Among the **4** fatalities of the 2003 Mount Everest expedition, 2 were of Nepali nationality. The rest 2 of the dead belonged to European countries France and Poland.

(Source:

<http://www.adventurestats.com/tables/everestfatalities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

2004

Three members of the South Korean Expedition lost their lives in quest of conquering Mount Everest in 2004. Similarly, 2 Bulgarian citizens and one climber from Japan and the United States each faced an untimely death taking the fatality count to **7**.

(Source:

<http://www.adventurestats.com/tables/everestfatalities.shtml>)

(Source:

<http://www.everesthistory.com/everestsummits/summitsbyyear.htm>)

2005

The year 2005 recorded the total Mount Everest fatality of **6**, one climber each from Canada, the United States, Slovenia, India, Germany, and the United Kingdom.

(Source:

<http://www.everestnews.com/stories2005/deathson Everest2005u06092005.htm>)

(Source:

<http://www.adventurestats.com/tables/everestfatilities.shtml>)

2006

A total of **11** bodies was found on Mount Everest in the year 2006. Among the deceased, 4 were from Nepal. The other dead were from France, India, Sweden, Brazil, Russia, Germany, and the United Kingdom.

(Source:<http://www.greatoutdoors.com/published/dispatch-20-dave-hahn-on-the-tragic-death-of-ang-phinjo-sherpa>)

(Source:

<http://www.adventurestats.com/tables/everestfatilities.shtml>)

2007

Two climbers, each from Japan and South Korea lost their lives on Mount Everest. Besides, one mountaineer from Nepal, Italy, and the Czech Republic each faced untimely death, taking the total fatality count to **7**.

(Source:

<http://www.adventurestats.com/tables/everestfatilities.shtml>)

2008

A Swiss native, Uwe Gianni Goltz faced a tragic death due to exhaustion in the year 2008. Uwe was part of the Sherpas documentary team.

(Source: <http://www.swissinfo.ch/eng/sherpas-find-body-of-swiss-killed-on-everest/8863530>)

2009

The year 2009 recorded a fatality count of **4**. The climbers from Nepal, China, Canada, and the Czech Republic lost their lives on Mount Everest.

(Source: <http://giladstern.co.za/Everest%202009%20Report.htm>)

2010

The **4** Everest fatalities in 2010 included Hungarian, Japanese, Danish, and English citizens.

(Source: <http://www.alanarnette.com/blog/2010/06/03/everest-2010-season-recap-2/>)

2011

In the year 2011, **5** climbers lost their lives on Mount Everest. Among the fatalities, 2 of them were from Japan. Besides, one mountaineer each from Nepal, Ireland, and the United States each faced a tragic death in the summit.

(Source: <https://nationalpost.com/news/world/american-doctor-and-two-other-climbers-die-on-mount-everest-officials>)

2012

During the 2012 Everest climbing season, **11** climbers including 3 Nepali and 2 German natives met their final destination. The remaining casualties were from India, Canada, South Korea, China, Cambodia, and Spain.

(Source: <http://www.alanarnette.com/blog/2012/05/22/everest-2012-north-side-deaths-bring-total-to-11/>)

2013

Five among **9** dead in the 2013 Mount Everest expedition were Nepalis. Additionally, 2 fatalities were from Russia and the others from South Korea and Bangladesh.

(Source: <http://www.alanarnette.com/blog/2013/06/03/everest-2013-season-recap/>)

2014

One of the most tragic deaths on Mount Everest was recorded in the year 2014. **16** Nepali climbers lost their lives to an avalanche. Besides, another Nepali mountaineer lost his life to High-altitude Pulmonary Edema (HAPE).

(Source: <https://www.telegraph.co.uk/news/2016/05/24/final-moments-of-tragic-mount-everest-team-climb-revealed/>)

2015

A devastating 7.8 magnitude earthquake struck Nepal in April 2015. The natural calamity triggered an avalanche on Mount Everest taking the death toll to **22**. Among the deceased, 11 belonged to Nepal while 4 were American natives. Besides, one climber from India, Australia, China, Vietnam, and Japan each lost their lives.

(Source: <http://www.alanarnette.com/blog/2015/04/27/everest-2015-ebc-death-update/>)

2016

In the year 2016, **7** of the mountain climbers faced untimely death on Mount Everest. Among the deceased were 3 Indians, one Australian, one Dutch, one Canadian, and one Nepali citizen.

(Source: <http://www.alanarnette.com/blog/2016/05/31/everest-2016-normal-season/>)

2017

The Everest death toll in 2017 reached **5**. One climber each from Nepal, Australia, Slovakia, India, and the United States lost their lives.

(Source: <https://thehimalayantimes.com/nepal/american-climber-dies-on-mt-everest/>)

(Source: <https://www.alanarnette.com/blog/2017/05/21/everest-2017-death-summits-thefts/>)

2018

In 2018, five mountaineers died while trying to conquer the highest peak. The recovered dead bodies were of 3 Nepali natives, one Macedonian and one Japanese citizen.

(Source: <http://www.alanarnette.com/blog/2017/12/17/everest-by-the-numbers-2018-edition/>)

2019

As per the statistics obtained in May 2019, **12** people have already lost their lives on Mount Everest. The first found body was of a solo hiker from the United States. Besides, 4 Indian climbers breathed their last on Everest. Additionally, 2 mountaineers from Ireland and one climber each from Nepal, Austria, and the United Kingdom lost their lives. In the meantime, another US citizen lost his life to altitude sickness. The last found body was of an American climber Christopher John Kulish, who was found dead on 27 May 2019.

(Source: <https://www.bbc.com/news/world-asia-48407433>)

Mount Everest Death Statistics Table By Nationality

SN	Nationality	Death Count
1	Nepal	115
2	India	24
3	Japan	21
4	United States	19
5	United Kingdom	18
6	China	12
7	South Korea	11
8	Australia	8
9	Germany	7
10	Poland	7
11	Russia	7
12	Canada	6

SN	Nationality	Death Count
13	Czechoslovakia	5
14	France	5
15	Spain	4
16	Austria	3
17	Bulgaria	3
18	Ireland	3
19	Italy	3
20	New Zealand	3
21	Czech Republic	2
22	Denmark	2
23	Hungary	2
24	Switzerland	2
25	Taiwan	2
26	Yugoslavia	2

SN	Nationality	Death Count
27	Bangladesh	1
28	Belgium	1
29	Brazil	1
30	Cambodia	1
31	Chile	1
32	Macedonia	1
33	Netherlands	1
34	Slovakia	1
35	Slovenia	1
36	Sweden	1
37	Ukraine	1
38	Vietnam	1
39	Unknown	1

Major Cause Of Death

Avalanche and falling are the major cause of death on Mount Everest. As per the stats, around **68** climbers have met with their demise due to Avalanche on the highest peak. Besides, the death toll from falling stays at around **67**.

The most unusual death of Mount Everest has been that of the U.S. astronaut, Karl Gordon Henize. Karl was on a mission to study radiation but unfortunately lost his life to severe High-altitude Pulmonary Edema on 5 October 1993.

In Conclusion

It has almost been a century since the mountain climbers started their mission to conquer the highest peak in the world. While some have successfully achieved this feat, many of them have died trying to pursue their dream.

You can find contradicting stats from different sources if you look for the actual Mount Everest death statistics. It is because more bodies, which are nearly a century old, are still being recovered in the present time.

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