

Sulawesi & Halmahera

A Greentours Trip Report

17th April to 3rd May 2019

Led by Phil Benstead

17/4 departure

We converged on Heathrow in the morning and leaving over an hour late we flew through the day/night to Singapore and the start of the tour.

18/4 Singapore and on to Makassar

We had little waiting time in Singapore but luckily did not have to change terminals to get the next plane for the short hop to Makassar. We mostly slept through the flight and before we knew it we were on the ground in Sulawesi. Our driver whisked us to the hotel and we had some free time in the afternoon to get ourselves together before an early dinner and some sleep.

19/4 Bantimurung-Bulusaraung NP and Sungai Pattunuang Asue

After a relaxed start and a hearty breakfast, where we met up our driver and guide (Russell) and we headed out of town towards Bantimurung-Bulusaraung NP. Finally clearing the suburbs we found ourselves surrounded by paddy fields. Reaching the park we headed out into a small park area that was very busy with local people (Easter weekend...).

All the splashing kids created ideal conditions for mud-puddling butterflies but the level of disturbance was very high which made for slightly frustrating photography. Nevertheless sitting quietly allowed us to get pictures of the huge orangetip-like *Hebemoia* and a selection of swallowtails, including *Graphium meyeri*. Moving to a small stream in a quieter area allowed us looks at some nice dragonflies and damselflies with *Ictinogomphus celebensis* being the most notable species but *Pseudagrion ustum* and *crocops* being much more colourful.

Tiring of the crowds below the falls we climbed a short way above the falls and things were immediately quieter and we started to see some reptiles. The easy favourite were the large but sadly sub-adult Sulawesi sailfins. One even ran across the river for us. The river here started to produce some beautiful odonates with *Libellago asclepiades* and *Rhinocypha monochroa* shining like little gems and a more robust female *Epopthalmia* dashed about egg-laying. A few lantern bugs (*Scamandra tethis*) graced tree trunks. Birds were hard to find but we could not fail to spot the pair of knobbed hornbills that flew high above the valley at one point. Susan spotted a nice ruddy kingfisher heading rapidly downstream and later we had two blue-eared kingfishers as well.

Eventually it was time to head for lunch but the park was not finished with us. As we drove out, Susan spotted our first moor macaques although surprisingly this troupe was rather shy and difficult to photograph. A little further on we connected with a huge monitor lizard making its way through the edge of the forest.

After lunch we drove the short distance to Sungai Pattunuang Asue. At the start of the trail we saw our only *Trithemis aurora* of the tour and had a nice male black sunbird briefly. Along the river we noted a slightly different butterfly fauna with the large endemic satyrid *Faunis menado* being very common. We had close but fleeting views of a pair of ruddy kingfishers as we walked. A captive breeding unit failed to produce views of the engaging and hyperactive tarsier that is endemic to southern Sulawesi (*fuscus*) but we could smell them! The oppressive heat and lack of sleep were getting on top of us at this point so it was nice when Phil spotted a trail-side bear cuscus and we could stop and try and get photographs. It behaved quite well in the end and we spent a happy 45 minutes with this fascinating mammal. You could easily sell it as a Madagascan species we decided. Nearby but elusive during this period was a Sulawesi babbler.

We took dinner in a seafood restaurant in town on the way home... A good first day.

20/4 **Karaenta Forest and Ramang-Ramang**

This morning we were up at dawn for breakfast and the slightly longer drive out to the Karaenta Forest, en route Phil spotted a very distant white-necked myna. Butterflies were much in evidence in the lantana scrub and we bagged several new species as we searched in vain for our target birds. A second stop produced a pair of pygmy squirrel (probably *murinus*) but no birds of note. Moving on we stopped next at a really obliging roadside troupe of moor macaques that allowed an enchanting hour of photography as they relaxed and socialised together – a seemingly very harmonious group. Arriving rather late at a good spot for the white-eye we were unsurprised that we could not find any but were really pleased to find a large green vine snake and our first flying lizard.

We took lunch down by the park again and then nipped across to Remang-Remang through very rural country that produced driveby blue-tailed bee-eater, Sulawesi crow and pied bushchat. Jumping into a boat we chugged through an astonishing limestone karst/wetland landscape. We passed under limestone outcrops, towering cliffs and past dense nipa swamps – an extraordinary place. We started to see some nice birds, we all caught up with collared kingfisher, white-breasted waterhen, striated heron, Sunda teal and a pair of purple heron. Overhead along the cliffs were numerous black kites.

Passing through the main village we eventually disembarked to work an area of fishponds and rice paddies completely surrounded by limestone hills. The only way in along the small river running through the narrow gorge we had just come through. Here we mostly chased butterflies and dragonflies, although we got good views of Javan pond heron and common kingfisher here. The dragonfly fauna was impressive here and the jewel in the crown being the small number of *Raphisimia bispina*. We tramped about the paddies happily until dusk threatened and we headed back to the boat. As we sped along in the increasing gloom we were buzzed by crepuscular dragonflies. We again dined en route to the hotel in a really good little seafood restaurant.

21/4 flight to Palopo (Bua) and on to Tana Toraja (Rantepao)

Today we had another early breakfast and left with Russell and with plenty of time to spare to check in for our domestic flight to Palopo at the top-end of South Sulawesi province, and our gateway to Tana Toraja. It was a much-more streamlined process this year.

It was not too surprising that the flight was delayed by 45 minutes but once we were aboard we were soon landing again! Palopo airport was delightfully small, the plane parking up by the terminal and the bags soon in our hands. Outside our new driver Charles. The names of the Torajan folk alone indicating that they are Christian. The bus bumped along in the lowlands for 20 km and then we started to climb up to a pass at about a 1000m asl. The forest here was OK but we had not time for exploration. Dropping down from the pass we started to see a lot of Torajan architecture in the roadside graves and granaries. Eventually we reached Rantepao and a very overdue but tasty lunch.

Our restaurant was very close to our first cultural stop, the village of Ke'te Kesu. Here we spent an interesting hour-and-a-half. First we enjoyed the richly decorated, and buffalo skull adorned, Torajan huts and granaries and then we visited the cliff burial site nearby. Munias and short-tailed starlings nested in the thatch.

Modern crypts here were astonishing in design and still used to this day. Higher up the trail ancient sandalwood coffins perched on horizontal scaffold poles inserted into the limestone cliff face. Human skulls and large bones littered the area. Strange, slightly creepy, effigies and statues of the dead filled modern display cases and ancient cave sites alike. Charles delivered up an interesting stream of information throughout and answered our many questions. Phil spotted a Sulawesi blue flycatcher and found some interesting dragonflies whilst the team were busy being cultural. As dusk fell a funeral entourage of over 100 mopeds and other vehicles arrived in the village and we picked our way through the throng and headed to the nearby hotel and settled in looking forward to more cultural delights in the morrow.

22/4 Tana Toraja

Simon and Susan checked the garden before breakfast for birds. It was quite busy with birds but we could only find the lemon-bellied white-eye this year, no sign of the endemic black-ringed white-eye.

A leisurely start to our cultural proceedings this morning with a nice late 0830 start and we met up with our cultural guide for the day - Johan. Together we headed for the famous effigy cliff site at Lemo. Here we wandered about spending our time culturally, biologically and even spending a little on textiles in the shops dotted about the site. Wooden effigies of long-dead Torajan nobles stared down at us from cliff-side niches. These places really have to be seen to be believed.

The sun was out and things looked great. Johan took us to a nearby village as he had heard that a funeral was taking place. This was an astonishing experience. Temporary shelters and a field kitchen had been set up to cater for the apparently modest number of guests (the deceased being young and single had fewer connections than an older person). We tried a durian at the pop-up shop by the entrance and then paid our respects to the family. Installed in a small guest shelter with the MC we gazed out on to an almost mediaeval spectacle. In front of us a large buffalo was being butchered into large chunks. Pigs were carried to the rear in bamboo trusses to the killing ground behind the

village. Squealing pigs could be heard and dogs paddled in the blood from the two buffalos slaughtered that morning. The catering team were busy stuffing the meat into bamboo for cooking Torajan-style. Whilst we watched the family brought us tea, coffee and biscuits and we gave them a small cash sum in lieu of the customary carton of cigarettes. This area really is very extraordinary.

Dropping more altitude we took some sneaky short cuts though very rural areas on rough tracks, seeing more amazing houses, before stopping again for a very short walk downhill. To one of the fascinating baby burial trees that dot this land. Infant mortality was very high before modern medicine apparently and stillborn babies and very young babies that died were immediately placed in a niche hacked from special banyan trees and the niche covered with a woven palm covering. The milky sap exuded from the wound in the tree 'fed' the baby, allowing it to grow large enough to move on to the next world. Yet another example of the unique attitude and relationship with death, and its attendant rites, held by the Torajan culture. This practice was swiftly condemned by missionaries but many of the trees still survive. Fascinating stuff.

Driving on we headed uphill to look at a cave burial site. The stream here had some nice dragonflies and butterflies. The sparring *Libellago asclepiades* were excellent. Before we knew it though it was time for lunch and we motored a short distance to sample the local cuisine again. In the carpark floated the languid *Idaea blanchardii*. Afterwards we checked out the busy pig and buffalo market/fattening station in town, which caters almost exclusively for the funeral market, now that buffalos are rarely used in agriculture.

Lastly we headed to a grove of megalithic standing stones clustered around a rather dilapidated Torajan meat tower. Johan told us all about this final link in the funerary rites, this one though only practiced by the noble families of the area. From here, pleased with our day, we trundled back towards the hotel.

23/4 the flight to Makassar and flying on to Manado

Leaving the hotel after breakfast Charles drove us downhill to the airport. We arrived bang on time and went through the check-in process in the small and very empty departure hall.

All too predictably our flight back to Makassar was delayed by an hour, which cut our wait time in the airport. Once we had successfully negotiated the less-than-easy route between arrivals and departures we checked in and our flight to Manado was also delayed. This left plenty of time for lunch and a coffee and our flight eventually left three-and-a-half hours late...

The flight was short mercifully and we finally arrived outside the airport in Manado to be greeted by our North Sulawesi driver (Hendrow) at nine o'clock. Our hotel was fairly close but we missed the restaurant last orders and opted for room service instead as we were feeling a bit frazzled.

24/4 to Bunaken

We enjoyed our breakfast, an incredible array of Asian breakfast foods available. Breakfast taken we went shopping and then we were shuttled to the harbour to wait for the boat to take us out to Bunaken island. We sat patiently and dodged occasional tropical showers and then the boat was

loaded and we were on our way. Safely stowed we hunkered down for the 50-minute ride in the rain and did not spot any wildlife of note.

Arriving at Bunaken, we were given the welcome speech and shown to our rooms and went for a tasty lunch. At 1500 we reconvened to check out the nearby reef drop-off and its attendant organisms. The sandy, debris strewn grass flats before the reef had an identifiable fauna that included the beautiful horned sea star (*Protoreaster nodusus*). Closer to the reef the bright blue starfish (*Linkia leavigata*) became more common. The reef drop-off was excellent and we enjoyed marvelling at the colourful fish and other things. Highlights included at least eight green turtles and one hawksbill. After two hours it started to rain in earnest and we swam back to the beach and walked home in the rain.

Before dinner we started to identify the many fish and other reef critters that we had seen and photographed and looked forward to a full day of the same tomorrow.

25/4 Bunaken Island

The snorkel team took to a boat this morning for a two-swim session before lunch. First stop was on the east side of the island. The fish were amazing and extremely diverse. We photographed over 100 species during the morning. The butterflyfish were especially impressive and we saw over 20 species during the morning. Climbing in after the first swim we feasted on pineapples, biscuits and coffee.

On our second session on the house reef, it did not take long for the first of about a dozen green turtles to appear in the deep water at the edge of the drop-off. Swimming with turtles is decidedly serene and we all spent time following these graceful denizens of the sea as best we could. Smaller individuals were over the reef and made for great photographs.

Cleaner wrasse stations were busy with colourful customers of all sizes, the wrasse working to clean off parasites and loose scales and keep their clients in tip-top shape. Anemone fishes hassled us if we got too close. The *Spirobranchus* (an ornate polychaete worm) diversity was extraordinary and produced a sea of colour on old coral boulders and rocks. Any idea that a boatload of small plastic Christmas trees had foundered on the reef was quickly dispelled by waving a hand over the colonies and watching them furl up and dart back into their holes at lightning speed.

In the afternoon we went out again in the boat for a short swim on the nearby drop-off, very addictive. The species list attests to the incredible number of species present but not to the sheer enjoyment of floating along and looking at it all.

26/4 to Weda (Halmahera)

Today we were up very early for our boat back to Manado. The staff on Bunaken had got up early to get us some breakfast but the boat crew were tardy. Phil saw a few birds, as he waited on the sand with a huge flyby channel-billed cuckoo and several pink-necked green pigeons. At sea we saw a few terns at last. Picked up in Manado we were whisked to the airport, for our quickest check-in so far. The flight had been rescheduled 15 minutes later but left on time. Whilst we waited to board we had a welcome strong coffee. The flight was short and soon we were dropping down into Halmahera.

Picked up by our Halmahera guide (Bang-bang) we prepared ourselves for a five hour transfer to Weda. You could tell we had crossed Weber's line because the first bird we saw was willie wagtail. The journey started sunny but the weather soon deteriorated after a tasty lunch in Sofifi. Lashing rain made bird-finding tricky but we stopped for our first white-bellied cuckooshrikes and blue-and-white kingfishers. Bumping along in the rain we eventually arrived at the dive resort and dived into our rooms out of the rain.

It carried on raining through our tasty dinner shared with a mixture of divers and birders. It stopped briefly and we heard a very close owlet-nightjar. Sadly by the time we had got our field cloths on it was raining again and we did not hear it again. We did see a monstrous frog on a short recce of the lodge trails but the rain continued and we headed back to our cabins. Phil checked out the frogs later and found a huge, noisy white-lipped tree-frog, a Halmahera gecko and a roosting pale-vented bush-hen. Sadly it rained all night, which put a lot of sediment on the reef just offshore for the entirety of our stay.

27/4 Weda

We were up well before dawn and packed into the van for the short drive to the trail-head for the standardwing lek. We walked the trail in the dark until we reached the site. Sunrise saw us visited briefly by a dusky scrubfowl, which wandered right past our position. As the light increased the standardwings started to display and we spent several hours here trying to get photographs as the light slowly improved. Some of the birds behaved rather well in the end and we were quite pleased with the results. At one point a great cuckoo dove flew in and perched high above us.

Back out on the road we walked a while. This was good for birds with perched Blyth's hornbill and a pair of pied imperial pigeons. The large satyrid, *Taeneris macrops*, perched for photos. Driving on we stopped briefly to photograph an obliging sombre kingfisher. Stopping again we ran into a flock of rufous-breasted trillers and Halmahera white-eye. Nearby a superb white-naped monarch. Bang-bang drove us further and we searched for azure dollarbird. It did not take long before we were 'scoping this rather elusive endemic. A great end to the morning session.

Back at the resort we looked at oriental dollarbird and had lunch. Out birding again in the afternoon we checked the access track which produced great views of white-bellied cuckooshrikes, more trillers and Wallacean monarch. Working the road again produced great views of sacred kingfisher and Indonesian kestrel.

28/4 Weda

Out at dawn for us this morning. Bang-bang took us into the nearby national park to chase birds in the woods. This session was notable for great views of red-bellied pitta, but only two of us saw the endemic ivory-breasted pitta briefly. The team managed views of chattering lory whilst Phil's back was turned and together we chased umbrella cockatoo in vain. Getting views of eclectic parrot perched up was great recompense though. Phil spotted a few nice damselflies, including a nice male *Nososticta exul*. We spent some time searching for scarlet-breasted fruit-dove before heading for lunch when the heat of the day had built up and bird activity declined.

In the afternoon we elected to go out on a boat for a snorkel session. We motored a long way out to a reef, en route we had a charming encounter with bow-riding spinner dolphins. The swim was good but visibility was a not the best. Nevertheless we recorded some great coral and a fish fauna subtly different from Bunaken.

After dinner we went out with Bang-bang for a superb night session. Our two hours in the field was initially quiet but then things started to happen. First Bang-Bang found us a superb ornate cuscus – an island endemic. We walked in for incredible views of this engaging mammal. Never resting he located a Molluccan owlet-nightjar that had been giving us the run-around. It sat beautifully for photographs.

29/4 Weda

Dawn saw us trundling along the track back into the park. This morning we finally connected with umbrella cockatoo (albeit briefly) and a flyby great-billed parrot was a surprise. We all managed to connect with singing male black-chinned whistlers. An ivory-breasted pitta finally surrendered to our collective relief. We then took part in a prolonged tape duel with scarlet-breasted fruit-dove but had to settle for close flight views as frustratingly the bird never settled in view. On the odonata front Phil was pleased to find single male *Nososticta halmahera* – perhaps the first time it has been photographed since its description four years ago. Also at the bridge were the attractive *Rhinocypha tinctoria* and super cute *Tetrathemis leptopera*. Phil photographed a mystery *Agyrtacantha*. Nearby Simon found us a nice green crested lizard and then it was time to head back for lunch.

In the afternoon we went out to sea to an isolated reef surrounded by sand. Here we connected with a number of new fish species in an hour-and-a-half swim. This area was especially good for starfish including crown-of-thorns, *Fromia milleporella* and *Nardoa novaecaledoniae* and also the sea-cucumber *Holothura edulis*. Fish on the sandy substrate near the reef included our only halfmoon triggerfish and whitestreak monocle bream.

30/4 Halmahera to Tangkoko

No rest for us this morning, we were up again before dawn to load up the car for the drive to the airport. Occasional stops for comfort and breakfast netted us some nice birds, notably a brief male shining monarch, moustached tree-swift and another superb fruit-dove. Finally settling into the departures lounge at the airport, Susan found us four oriental pratincoles on the runway – amazingly this may be the first record of this species for the island.

David was waiting for us in Manado and feeling peckish we stopped for sticky rice both sweet and savoury, a large durian and a kilo of delicious duku (the in season tropical fruit in North Sulawesi and much-favoured by the locals and with good reason). Eventually we reached our homestay in Tangkoko and settled in. After a late lunch we went out in to the forest with our guide (Meide) for birds and mammals. Macaques greeted us on the access track, a great start. Meide walked us to a tarsier roost and the cameras blazed away at these ridiculously cute mammals – all eyes, ears and tiny retroussé noses. Meide also showed us lilac kingfisher, a family of bear cuscus, a fantastic male black-naped fruit-dove and we connected with two whitish dwarf squirrels.

We did not have to wait long for dark and we quickly heard the flight call of a great eared-nightjar as it flew over the canopy above us. Next up was Sulawesi nightjar but the nearby male was rather sluggish in responding to our tape and we had poor views at best. Walking back to the car along the track we spotted several new frogs for the trip and enjoyed the huge roosting *Papilio gigon*. Bracing ourselves we walked quietly to the roost hole of the giant tarantula (an undescribed? *Cyriopagopus* species). This really is a bit meaty for an invertebrate and probably should not be allowed. We saw two more as we walked but nothing came close to the first in size and horror. By one of the frog ponds we found a recently trampled box turtle (*Cuora amboinensis*), victim of the considerable foot traffic up and down the main track.

1/5 **Tangkoko**

An early start for us saw us munching bananas and downing coffee for a 0530 kick-off. Off we went in the van for the short shuttle to the park. We had elected to chase macaques this morning but they were waiting for us near the car park. No hard work for us this year. We spent an enchanting hour with them and many photos were taken.

Back at the homestay we had a quick breakfast before heading out into the forest again. Meide quickly tracked down a nice adult spot-tailed goshawk calling in the canopy and nearby we found an immature feeding on something on the ground. Phil spotted a pair of Tabon scrubfowl just a little later. Kingfishers featured once again with great views of green-backed and lilac again.

Sphenomorphus lizards appeared on the ground on trunks and roots of trailside trees – would they be identifiable?

We visited the same tarsier tree again for a quick look before Meide dragged us up the hill chasing roosting ochre-bellied boobooks. He found them and as we watched the startled pair we were treated to some mobbing by a pale blue monarch as well. Double bonus. Meide had another surprise in store for us though. Telling us to walk quietly, he guided us in to another tarsier roost. This was truly enchanting. Peeping from the base of a large oval treehole were four tarsiers. The fourth was shy and occasionally disappeared leaving a perfect feng-shui composition of a catlike central figure flanked by matching bookends! Very appealing and the cameras snapped away as we tried to do the charming tableau justice. It was time for lunch so we had to drag ourselves away.

After lunch we headed down to the beach at Batuputih to hook up with our outrigger canoe and boatman for the cruise along the coast to the mangrove channel where we were due to search out wildlife. Lesser frigatebirds circled off the beach. The local kids were enjoying their bank holiday by repeatedly jumping off the jetty. The jetty was too high for us so the boatman beached the canoe and we timed our clambering aboard carefully before wrapping up our cameras and setting off. Motoring out we were treated to another look at an osprey as it flew along the rocky coast.

Meide spotted our target species as we approached the river mouth, a stunning great-billed kingfisher in a beachside tree. What a monster! Later we chased others up the mangrove channel and also connected briefly with both collared and common kingfisher. The easy highlight though came when the boatman spotted a huge Jansen's rat snake (*Gonyosoma janseni*) sleeping in a tree overhanging the waterway. Motoring back we looked at the incredible coastal topography, caves and doors in the basaltic rock and stopped for a nice flock of silver-tipped imperial pigeons feeding in a

tree just above the sea. A nice trip. Driving back through the village at dusk, one of us was thrilled to see a big show of *Zygomma obtusum* along the drains.

2/5 **Tangkoko**

We worked hard with Meide this morning trying to fill gaps in the bird list and enjoying more mammal action. First up was a very close encounter with a superb lilac kingfisher. Next Meide persevered until he had found a way for the scope to get through the canopy and let us look at an immature Sulawesi hawk-eagle. Next we had a great encounter with four bear cuscus and spent more time with ashy woodpeckers. Back on the main track the team chased bay coucal successfully and we saw another bear cuscus. The campsite had our only Sulawesi roller briefly and spending more time here paid off. Blue-backed parrots flew through and we saw both buff-banded and barred rail. This time we saw the female black-naped fruit dove in the surrounding trees.

Back at the homestay for lunch Phil explored the river finding the beautiful *Libellago xanthocyanea* and photographing yellow-sided flowerpecker.

Our afternoon session was notable for close views of white-necked myna and knobbed hornbill and we were deep in the forest when we heard the distant drumming coming closer at a rapid speed. Rain! We quickly prepared ourselves; dry bags, umbrellas and ponchos were deployed but we still got soaked before reaching the shelter on the main track! Eventually it eased up and we headed back to the homestay.

3/5 **Tangkoko and to the airport**

Our last morning session saw us leaving before dawn and watching the sunrise as we climbed up the hill in the zebra. We drove uphill for 25 minutes and then a short walk along a ridgetop through a coconut plantation took us to a perfect vantage point to view the forest all around us. Here we had a lovely time as birds appeared in nearby tree-tops and fruiting trees. Our first and last Sulawesi hornbills flew in and fed in a tree and showed very well. Parrots stormed in, first a pair of blue-backed parrots and then both endemic species of hanging-parrot in quick succession. Pigeons behaved well too and we had great views of silver-tipped imperial pigeon and grey-cheeked green pigeon. Treetops nearby pulled in singing Sulawesi triller, brown-throated sunbird, grey-sided flowerpecker and lots of grosbeak myna with their big chunky orange bills and waxy rump feathers. Collared kingfishers and black-naped orioles were spotted here too. As it got warmer things got quieter and we headed back to the van.

Back at the homestay we showered, packed up our stuff and had breakfast. Leaving in good time and taking the bumpy but birdy shortcut we had time to stop for birds and scenery. A close barred rail was appreciated after yesterday's poor view and we got excited by our first Javan mynas too. A quick supermarket stop for spices and coffee and then we were back at Manado airport and saying goodbye to David. Things seemed to be running smoothly in the airport and we had a trouble free check-in, passed through security and onto an ontime flight to Singapore.

We had our farewell dinner in the food court in the terminal at Singapore and then travelled through the night back to the UK. A great tour.

Birds recorded in Sulawesi, Halmahera and Ternate between 18th April and 2nd May

Sunda teal	<i>Anas gibberifrons</i>	A few seen well from the boat at Remang-Remang (South Sulawesi). Pretty much an Indonesian endemic.
Tabon scrubfowl	<i>Megapodius cummingi</i>	Two seen well at Tangkoko, subspecies <i>gilberti</i> .
Dusky scrubfowl	<i>Megapodius freycinet</i>	One pre-dawn at Weda wandering past us in the dark, subspecies to the airport on the last morning..
Rock pigeon	<i>Columba livia</i>	towns.
Red collared dove	<i>Streptopelia tranquebarica</i>	One at Makassar airport on our third and final visit. Another en route to the airport on the last morning.
Spotted dove	<i>Streptopelia chinensis</i>	Seen daily on Halmahera. One en route to the airport on the last morning.
Sultan's cuckoo dove	<i>Macropygia doreya</i>	A few daily on Halmahera, subspecies <i>albiceps</i> .
[White-faced cuckoo dove]	<i>Turocoena manadensis</i>	Heard only at Tangkoko this year.
Great cuckoo dove	<i>Reinwardtoena reinwardti</i>	One seen at Weda (Halmahera).
Pink-necked green pigeon	<i>Treron vernans</i>	A few in coastal habitat at Bunaken Island and Tangkoko. Not seen well this year.
Grey-cheeked green pigeon	<i>Treron griseicauda</i>	A few at Tangkoko, seen well on the last morning.
Asian emerald dove	<i>Chalcophaps indica</i>	One at Weda (Halmahera).
Black-naped fruit-dove	<i>Ptilinopus melanospilus</i>	One male on the first afternoon at Tangkoko. A female the next day. Nominate subspecies.
Scarlet-breasted fruit-dove	<i>Ptilinopus bernsteinii</i>	A pair on Halmahera seen poorly, others heard.
Superb fruit-dove	<i>Ptilinopus superbus</i>	Two singles on Halmahera.
[Blue-capped fruit-dove]	<i>Ptilinopus monacha</i>	Heard just once on Halmahera.
Grey-headed fruit-dove	<i>Ptilinopus hyogastrus</i>	Small numbers daily on Halmahera. A striking bird.
Moluccan imperial pigeon	<i>Ducula perspicillata</i>	Halmahera.
Green imperial pigeon	<i>Ducula aenea</i>	Many seen at Tangkoko. This race, <i>paulina</i> , looks very different from other races and is a possible split in the future.
Cinnamon-bellied imperial pigeon	<i>Ducula basilica</i>	Just one seen at Weda (Phil only). Others heard frequently.
Pied imperial pigeon	<i>Ducula bicolor</i>	Small numbers daily on Halmahera. Two at Tangkoko.
Silver-tipped imperial pigeon	<i>Ducula luctuosa</i>	A few seen well in coastal forest at Tangkoko.
Sulawesi malkoha	<i>Rhamphococcyx calyorhynchus</i>	A few daily at Tangkoko.
[Moluccan brush cuckoo]	<i>Cacomantis variolosus</i>	Halmahera, heard only sadly.
[Black-billed koel]	<i>Eudynamys melanorhynchus</i>	Heard on Bunaken and at Tangkoko.
Channel-billed cuckoo	<i>Scythrops novaehollandae</i>	One on Bunaken (Phil only).
Lesser coucal	<i>Centropus bengalensis</i>	A few on Sulawesi.
Goliath coucal	<i>Centropus goliath</i>	Noted on two dates on Halmahera.
Bay coucal	<i>Centropus celebensis</i>	One watched in coastal forest at Tangkoko.
Moustached treeswift	<i>Hemiprocne mystacea</i>	A large congregation en route to the airport as we left Halmahera.

Grey-rumped treeswift	<i>Hemiprocne longipennis</i>	A few at Tangkoko on two days.
Glossy swiftlet	<i>Collocalia esculenta</i>	Widespread Sulawesi.
Sulawesi swiftlet	<i>Aerodramus sororum</i>	Remang-Remang and Tangkoko.
Halmahera swiftlet	<i>Aerodramus infuscatus</i>	Halmahera.
Uniform swiftlet	<i>Aerodramus vanikorensis</i>	A few around Makassar.
Edible-nest swiftlet	<i>Aerodramus fuciphagus</i>	Introduced, recorded at most sites in Sulawesi.
swiftlet		
House swift	<i>Apus nipalensis</i>	A few around Makassar.
Moluccan owl-	<i>Aegotheles crinifrons</i>	Bang-Bang found us a beauty on our night session on
nightjar		Halmahera.
[Great eared-nightjar]	<i>Lyncornis macrotis</i>	Heard in flight over the canopy at Tangkoko.
Sulawesi nightjar	<i>Caprimulgus celebensis</i>	One seen rather poorly in flight at Tangkoko.
Savanna nightjar	<i>Caprimulgus affinis</i>	One at dusk in Makassar.
Buff-banded rail	<i>Gallirallus philippensis</i>	One on the road en route to the airport on Halmahera.
		Two in the campsite clearing at Tangkoko.
Barred rail	<i>Gallirallus torquatus</i>	One in flight in the campsite clearing at Tangkoko.
		Another seen very well from the van to the airport on
		the last morning.
Sulawesi bush-hen	<i>Amaurornis isabellina</i>	Heard frequently at Tangkoko. One for Phil below the
		coconut grove lookout.
Pale-vented bush-hen	<i>Amaurornis moluccana</i>	One at night whilst frogging at Weda (Halmahera) for
		Phil.
White-breasted	<i>Amaurornis phoenicurus</i>	Makassar and Remang-Remang.
waterhen		
Common sandpiper	<i>Actitis hypoleucos</i>	Perhaps one over-summering on fishponds near the
		hotel in Makassar. Another on the runwat at Kao
		airport (Halmahera).
Oriental pratincole	<i>Glareola maldivarum</i>	Four found by Susan on the runway at Kao airport on
		30/4/2019 may represent the first record for Halmahera
		amazingly. A great record.
Gull-billed tern	<i>Gelochelidon nilotica</i>	One off Manado on the way back from Bunaken.
Whiskered tern	<i>Chlidonias hybridus</i>	Makassar and nearby rice paddies. A few resting
		offshore of Manado.
Great crested tern	<i>Sterna bergii</i>	One off Manado.
Cattle egret	<i>Ardea ibis</i>	A few in South Sulawesi, Manado and Halmahera.
Eastern great egret	<i>Ardea modesta</i>	A few near Makassar.
Purple heron	<i>Ardea purpurea</i>	Two at Remang-Remang (South Sulawesi). A few in
		Tana Toraja. One on Halmahera.
Great-billed heron	<i>Ardea sumatrana</i>	One in from the hotel in Ujung Padang for the team.
Great egret	<i>Ardea alba</i>	A few around Makassar.
Intermediate egret	<i>Ardea intermedia</i>	A few in the south of Sulawesi.
Little egret	<i>Egretta garzetta</i>	Scattered records in Sulawesi.
Pacific reef egret	<i>Egretta sacra</i>	Ujung Padang.
Javan pond heron	<i>Ardeola speciosus</i>	Ujung Padang and paddies elsewhere in the south.
Striated heron	<i>Butorides striatus</i>	Ujung Padang, good views from the boat at Remang-
		Remang.
Black-crowned night-	<i>Nycticorax nycticorax</i>	One in the mangroves at Tangkoko.
heron		
Rufous night-heron	<i>Nycticorax caledonicus</i>	One on the river on the first morning at Tangkoko.
Greater frigatebird	<i>Fregata minor</i>	Photos revealed the presence of one immature bird
		amongst the half dozen lessers at Batuputih.

Lesser frigatebird	<i>Fregata ariel</i>	Six high in the sky en route to Weda on Halmahera. Another half dozen at Batuputih.
Osprey	<i>Pandion haliaetus</i>	One on the way to the airport on Halmahera. Another on the mangrove boat trip at Tangkoko. Split by some authorities as Australasian osprey <i>P. cristatus</i> .
Black-winged kite	<i>Elanus caeruleus</i>	One at the airport at Palopo. This large race, <i>hypoleucos</i> , is sometimes split out as pied kite.
Sulawesi hawk eagle	<i>Nisaetus lanceolatus</i>	Single immature bird at Tangkoko. An adult on the nest from the coconut grove viewpoint on the last morning. A good show.
[Sulawesi serpent-eagle]	<i>Spilornis rufipectus</i>	Heard at Bantimurung-Bulusaraung NP.
Black eagle	<i>Ictinaetus malayensis</i>	One en route to Tana Toraja.
Gurney's eagle	<i>Aquila gurneyi</i>	One at Weda.
Pygmy eagle	<i>Hieraetus weiskei</i>	One high in the sky at Weda on the first day.
Brahminy kite	<i>Haliastur indus</i>	A few in North Sulawesi and frequently encountered on Halmahera.
Black kite	<i>Milvus migrans</i>	Common at Remang-Remang. One in Tana Toraja.
Spot-tailed goshawk	<i>Accipiter trinitatus</i>	An adult and an immature at Tangkoko.
Moluccan scops owl	<i>Otus magicus</i>	One near the lodge at Weda as we left in the dark on the last morning (Halmahera).
[Sulawesi scops owl]	<i>Otus manadensis</i>	Heard at Tangkoko.
Ochre-bellied boobook	<i>Ninox ochracea</i>	Two found roosting at Tangkoko on the first day.
Sulawesi hornbill	<i>Rhabdotorrhinus exarhatus</i>	Five feeding in a close fruiting tree on the last morning at Tangkoko.
Blyth's hornbill	<i>Rhyticeros plicatus</i>	Small numbers noted daily on Halmahera.
Knobbed hornbill	<i>Rhyticeros cassidix</i>	A pair high overhead at Bantimurung-Bulusaraung NP. Pair seen well on the last full day at Tangkoko.
Ashy woodpecker	<i>Mulleripicus fulvus</i>	Small numbers daily at Tangkoko.
Green-backed kingfisher	<i>Actenoides monachus</i>	Several at Tangkoko.
Common paradise-kingfisher	<i>Tanysiptera galeata</i>	Small numbers on Halmahera.
Sulawesi lilac kingfisher	<i>Cittura cyanotis</i>	At least two at Tangkoko seen well.
Great-billed kingfisher	<i>Pelargopsis melanorhyncha</i>	Several on the mangrove boat trip at Tangkoko.
Ruddy kingfisher	<i>Halcyon coromanda</i>	One at Bantimurung-Bulusaraung NP. Two at Sungai Pattunuang Asue. Heard at Tangkoko.
Blue-and-white kingfisher	<i>Todiramphus diops</i>	A few daily on Halmahera.
Sombre kingfisher	<i>Todiramphus funebris</i>	Small numbers daily on Halmahera.
Collared kingfisher	<i>Todiramphus chloris</i>	Common Sulawesi.
Sacred kingfisher	<i>Todiramphus sanctus</i>	A few on Halmahera.
Variable dwarf kingfisher	<i>Ceyx lepidus</i>	One roosting at Weda as we walked in to the standardwing site in the dark. The North Moluccan race is sure to be elevated to species rank soon.
Blue-eared kingfisher	<i>Alcedo meninting</i>	One at Bantimurung-Bulusaraung NP.
Common kingfisher	<i>Alcedo atthis</i>	Remang-Remang (1), near Kao (Halmahera) and the mangroves near Tangkoko (1). This sub-species (<i>hispidoides</i>) may be elevated to species rank in the near future.

Blue-tailed bee-eater	<i>Merops philippinus</i>	A few seen in flight only en route to Remang-Remang and at Tangkoko.
Rainbow bee-eater	<i>Merops ornatus</i>	Small numbers on Halmahera.
Sulawesi roller	<i>Coracias temmincki</i>	One at Tangkoko. Endemic to Sulawesi.
Oriental dollarbird	<i>Eurystomus orientalis</i>	Small numbers daily around Weda (Halmahera).
Azure dollarbird	<i>Eurystomus azureus</i>	One at Weda (Halmahera) on the first day, a trip highlight for sure. Endemic to Halmahera.
Indonesian kestrel	<i>Falco moluccensis</i>	A few on Halmahera and Sulawesi.
Umbrella cockatoo	<i>Cacatua alba</i>	We struggled to see this species well this year on Halmahera, but got a few conclusive glimpses. Many others heard.
[Ornate lorikeet]	<i>Trichoglossus ornatus</i>	Heard at Tangkoko.
Red-flanked lorikeet	<i>Charmosyne placentis</i>	Noted daily on Halmahera. All were fast and in flight..
Chattering lory	<i>Lorius garrulus</i>	One on Halmahera for Bang-Bang and the team.
[Sulawesi racquet-tail]	<i>Prioniturus platurus</i>	Heard only this year at Tangkoko.
Great-billed parrot	<i>Tanygnathus megalorynchos</i>	One flying past on the last day at Weda (Halmahera).
Blue-backed parrot	<i>Tanygnathus sumatranus</i>	Five flying through the campsite clearing at Tangkoko. A pair seen well on the last morning there.
Eclectus parrot	<i>Eclectus rorarius</i>	Small numbers daily on Halmahera.
Sulawesi hanging-parrot	<i>Loriculus stigmatus</i>	One female in the garden at Tangkoko. Good views from the coconut grove lookout on the last morning there.
Moluccan hanging-parrot	<i>Loriculus amabilis</i>	One in flight for Phil at Weda, was our only record sadly.
Pygmy hanging-parrot	<i>Loriculus exilis</i>	A few on the last morning at Tangkoko.
Moluccan pitta	<i>Erythropitta rufiventris</i>	One seen well at Weda (Halmahera).
Ivory-breasted pitta	<i>Pitta maxima</i>	Frequently heard singing on Halmahera. One seen well at Weda and another briefly.
[Golden-bellied gerygone]	<i>Gerygone sulphurea</i>	Widespread in Sulawesi, frequently heard.
Halmahera oriole	<i>Oriolus phaeochromus</i>	Great views of several birds at Weda.
Black-naped oriole	<i>Oriolus chinensis</i>	Heard at Bantimurung-Bulusaraung NP and Remang-Remang. Seen well at Tangkoko. This subspecies, <i>celebensis</i> , is likely to form part of a new species Sulawesi golden oriole <i>Oriolus frontalis</i> in the near future.
White-breasted woodswallow	<i>Artamus leucorhynchus</i>	Open habitats in both Sulawesi and Halmahera.
White-rumped cuckooshrike	<i>Coracina leucopygia</i>	Single flyby at the coconut grove lookout on the last morning in Tangkoko for Phil.
White-bellied cuckooshrike	<i>Coracina papuensis</i>	Halmahera – frequently encountered.
Halmahera cicadabird	<i>Lalage parvula</i>	Single male on the first day on Halmahera.
Sulawesi triller	<i>Lalage leucopygialis</i>	One in Tana Toraja. Two seen well on the last morning at Tangkoko.
Rufous-bellied triller	<i>Lalage aurea</i>	Recorded in small numbers daily on Halmahera, seen very well on the first day there.
Moluccan whistler	<i>Pachycephala macrorhyncha mentalis</i>	Two at Weda, others heard. This complex likely to be split further in the future.
Willie fantail	<i>Rhipidura leucophrys</i>	Frequently encountered on Halmahera.
White-eyed spangled drongo	<i>Dicrurus leucops</i>	Common at Tangkoko.

Halmahera spangled drongo	<i>Dicrurus atrocaeruleus</i>	Small numbers daily on Halmahera.
[Halmahera paradise-crow]	<i>Lycorax pyrrhopterus</i>	Heard only at Weda this year.
Wallace's standardwing	<i>Semioptera wallacii</i>	Lek of 4-5 males watched for a long time on our first morning at Weda.
White-naped monarch	<i>Carterornis pileatus</i>	One on the first day at Weda (Halmahera).
Pale-blue monarch	<i>Hypothymis puella</i>	Heard in South Sulawesi. One mobbing the ochre-bellied hawk owls at Tangkoko.
Moluccan monarch	<i>Myiagra galeata</i>	A few daily on Halmahera.
Shining monarch	<i>Myiagra alecto</i>	A male en route to the airport (Halmahera) at the breakfast stop.
Wallacean monarch	<i>Symposiachrus trivirgatus</i>	A few daily on Halmahera. This subspecies, <i>bimaculatus</i> , may well be elevated to species level in the near future.
Long-billed crow	<i>Corvus validus</i>	An amazing species – daily on Halmahera.
Sulawesi crow	<i>Corvus celebensis</i>	Singles en route to Remang-Remang, in Tana Toraja and common around Tangkoko.
Pacific swallow	<i>Hirundo tahitica</i>	Open habitats in Sulawesi and Halmahera.
Sooty-headed bulbul	<i>Pycnonotus aurigaster</i>	Introduced on Sulawesi where widespread in disturbed habitats.
Yellow-vented bulbul	<i>Pycnonotus goiavier</i>	Makassar only (introduced).
Halmahera golden bulbul	<i>Hypsipetes chloris</i>	Noted in small numbers on every day on Halmahera.
Sulawesi babbler	<i>Trichastoma celebense</i>	Single at Sungai Patannuang Asue. Pair found roosting at night at Tangkoko.
Black-ringed white-eye	<i>Zosterops anomalus</i>	Susan had one before breakfast in the hotel garden at Tana Toraja.
Lemon-bellied white-eye	<i>Zosterops chloris</i>	Tana Toraja.
Halmahera white-eye	<i>Zosterops fuscifrons</i>	(Halmahera).
Metallic starling	<i>Aplonis metallica</i>	Halmahera.
Asian glossy starling	<i>Aplonis panayensis</i>	Two in the mangroves near Tangkoko.
Mollucan starling	<i>Aplonis mysolensis</i>	Two in one of the villages between Weda and the airport (Halmahera).
Short-tailed starling	<i>Aplonis minor</i>	Common in villages in Tana Toraja.
White-necked myna	<i>Streptocitta albigollis</i>	One near Bantimurung-Bulusaraung NP. Three at Tangkoko.
Grosbeak myna	<i>Scissirostrum dubium</i>	A few small flocks in flight at Tangkoko. A large and more obliging flock on the last morning from the coconut grove lookout.
Javan myna	<i>Acrodothores javanicus</i>	Two or three on the back road to Manado on the last morning. An introduced species.
Sulawesi blue flycatcher	<i>Cyornis omissus</i>	One in Tana Toraja.
Pied bushchat	<i>Saxicola caprata</i>	A few near Remang-Remang and Tana Toraja. This subspecies, <i>albonotatus</i> , may be elevated to species level in the future.
Yellow-sided flowerpecker	<i>Dicaeum aureolimbatum</i>	Tangkoko.

Grey-sided flowerpecker	<i>Dicaeum celebicum</i>	A male at the coconut grove lookout on the last morning (Tangkoko).
[Halmahera flowerpecker]	<i>Dicaeum schistaceiceps</i>	Heard daily at Weda. Frustrating.
Brown-throated sunbird	<i>Anthreptes malacensis</i>	A male at the coconut grove lookout on the last morning (Tangkoko).
Black sunbird	<i>Leptocoma sericea</i>	Sungai Pattanuang Asue and Tangkoko on Sulawesi. Also recorded on Halmahera.
Sahul sunbird	<i>Cinnyris clementiae</i>	Tana Toraja. Halmahera.
Black-faced munia	<i>Lonchura molucca</i>	Weda (Halmahera).
Scaly-breasted munia	<i>Lonchura punctulata</i>	Bantimurung-Bulusaraung NP and near Manado.
Black-headed munia	<i>Lonchura atricapilla</i>	widespread.
Pale-headed munia	<i>Lonchura pallida</i>	South Sulawesi.
Eurasian tree sparrow	<i>Passer montanus</i>	ubiquitous.
Grey wagtail	<i>Motacilla cinerea</i>	One at Tangkoko.

Fish recorded at Bunaken Island and Weda

This list is incomplete!

Blue-spotted ribbontail ray	<i>Taeniura lymma</i>	Bunaken.
Barred moray	<i>Echidna polyzona</i>	One from the mangrove boat at Tangkoko!
Greystreak lizardfish	<i>Synodus dermatogenys</i>	Bunaken.
Lattice soldierfish	<i>Myripristis violacea</i>	Bunaken.
Spotfin squirrelfish	<i>Neoniphron sammara</i>	Bunaken.
Smooth flutemouth	<i>Fistularia commersonii</i>	Bunaken.
Trumpetfish	<i>Aulostomus chinensis</i>	Bunaken and Weda.
Common lionfish	<i>Pterois miles</i>	Bunaken.
Spotfin lionfish	<i>Pterois antenna</i>	Bunaken.
Sharksucker	<i>Echenais naucrates</i>	Bunaken.
Magenta dottedback	<i>Pictichromis porphyrea</i>	Bunaken.
Thumbprint emperor	<i>Lethrinus harak</i>	Bunaken.
Peacock grouper	<i>Cephalopholis argus</i>	Bunaken and Weda.
Flagtail grouper	<i>Cephalopholis urodeta</i>	Bunaken.
Dwarf spotted grouper	<i>Epinephelus merra</i>	Bunaken.
Freckled hawkfish	<i>Paracirrhites forsteri</i>	Bunaken and Weda.
Giant trevally	<i>Caranx ignobilis</i>	Bunaken.
Bluefin trevally	<i>Caranx melampygus</i>	Bunaken and Weda.
One-spot snapper	<i>Lutjanus monostigma</i>	Bunaken.
Checkered snapper	<i>Lutjanus decussatus</i>	Bunaken and Weda.
Midnight snapper	<i>Macolour macularis</i>	Bunaken.
Blue and yellow fusilier	<i>Caesio teres</i>	Weda.
Scissortail fusilier	<i>Caesio caeruleaurea</i>	Bunaken and Weda.
Yellowback fusilier	<i>Caesio xanthonota</i>	Weda.
Striped sweetlips	<i>Plectorhinchus vittatus</i>	Bunaken.
Gold-lined sweetlips	<i>Plectorhinchus chrysotaenia</i>	Weda.
Humpnose big-eye bream	<i>Montaxis grandoculis</i>	Bunaken and Weda.
Two-lined monocle bream	<i>Scolopsis bilineata</i>	Bunaken.
Whitestreak monocle bream	<i>Scolopsis ciliatus</i>	Weda.
Dash-dot goatfish	<i>Parupeneus barberinus</i>	Weda.
Two-barred goatfish	<i>Parupeneus bifasciatus</i>	Weda.
Manybar goatfish	<i>Parupeneus multifasciatus</i>	Weda.
Melon butterflyfish	<i>Chaetodon trifasciatus</i>	Bunaken and Weda.
Threadfin butterflyfish	<i>Chaetodon auriga</i>	Bunaken.
Vagabond butterflyfish	<i>Chaetodon vagabundus</i>	Bunaken and Weda.
Ornate butterflyfish	<i>Chaetodon ornatissimus</i>	Bunaken and Weda.
Black-backed butterflyfish	<i>Chaetodon melanotis</i>	Bunaken.
Panda butterflyfish	<i>Chaetodon adeirgastos</i>	Weda.
Spot-tail butterflyfish	<i>Chaetodon ocellicaudus</i>	Weda.

Speckled butterflyfish	<i>Chaetodon citrinellus</i>	Bunaken.
Lined butterflyfish	<i>Chaetodon lineolatus</i>	Bunaken.
Triangle butterflyfish	<i>Chaetodon triangulum</i>	Bunaken and Weda.
Racoon butterflyfish	<i>Chaetodon lunula</i>	Bunaken.
Saddled butterflyfish	<i>Chaetodon ephippium</i>	Bunaken and Weda.
Klein's butterflyfish	<i>Chaetodon kleinii</i>	Bunaken.
Latticed butterflyfish	<i>Chaetodon rafflesi</i>	Bunaken and Weda.
Reticulated butterflyfish	<i>Chaetodon reticulatus</i>	Bunaken?
Dotted butterflyfish	<i>Chaetodon semion</i>	Bunaken.
Ovalspot butterflyfish	<i>Chaetodon speculum</i>	Bunaken.
Chevroned butterflyfish	<i>Chaetodon trifascialis</i>	Bunaken and Weda.
Eclipse butterflyfish	<i>Chaetodon bennetti</i>	Bunaken.
Pacific double-saddled butterflyfish	<i>Chaetodona ulitiensis</i>	Bunaken and Weda.
Teardrop butterflyfish	<i>Chaetodon unimaculatus</i>	Bunaken.
Very longnose butterflyfish	<i>Forcipiger longirostris</i>	Bunaken.
Longnose butterflyfish	<i>Forcipiger flavissimus</i>	Bunaken.
Pyramid butterflyfish	<i>Hemitaurichthys polylepis</i>	Bunaken.
Singular bannerfish	<i>Heniochus singularius</i>	Bunaken and Weda.
Pennant bannerfish	<i>Heniochus chrysostomus</i>	Bunaken.
Humphead batfish	<i>Heniochis varius</i>	Bunaken and Weda.
Emperor angelfish	<i>Pomocanthus imperator</i>	Bunaken.
Semi-circle angelfish	<i>Pomocanthus semicirculatus</i>	Bunaken.
Blue-girdled angelfish	<i>Pomocanthus navarchus</i>	Bunaken and Weda.
Regal angelfish	<i>Pygoplites diacanthus</i>	Bunaken and Weda.
Vermiculated angelfish	<i>Chaetodontoplus mesoleucus</i>	Weda.
Pearl-scaled angelfish	<i>Centropyge vroliki</i>	Weda.
Indo-Pacific sargeant	<i>Abudefduf vaigiensis</i>	Bunaken and Weda.
Staghorn damsel	<i>Amblyglyphidodon curacao</i>	Bunaken and Weda.
Spinecheek anemonefish	<i>Premnas biaculeatus</i>	Bunaken.
Orange anemonefish	<i>Amphiprion sandaracinos</i>	Bunaken and Weda.
Clark's anemonefish	<i>Amphiprion clarkii</i>	Bunaken and Weda.
Pink anemonefish	<i>Amphiprion perideraon</i>	Bunaken and Weda.
Blue-axil chromis	<i>Chromis caudalis</i>	Bunaken and Weda.
Yellowtail demoiselle	<i>Neopomacentrus azysron</i>	Bunaken and Weda.
Reticulated dascyllus	<i>Dascyllus reticulatus</i>	Weda.
Humbug	<i>Dascyllus aruanas</i>	Bunaken.
Threespot dascyllus	<i>Dascyllus trimaculatus</i>	Weda.
Black damsel	<i>Neoglyphidodon melas</i>	Weda.
Neon damsel	<i>Pomatocentrus coelestis</i>	Bunaken and Weda.
Goldbelly damsel	<i>Pomatocentrus auriventris</i>	Bunaken.

Speckled damsel	<i>Pomacentrus bankanensis</i>	Bunaken and Weda.
Blackbar damsel	<i>Petroglyphidodon dickii</i>	Weda.
Napoleon wrasse	<i>Cheilinus undulatus</i>	Bunaken.
Red-breasted wrasse	<i>Cheilinus fasciatus</i>	Bunaken and Weda.
Cigar wrasse	<i>Cheilina inermis</i>	Bunaken.
Bird wrasse	<i>Gomphosus varius</i>	Weda.
Goldstripe wrasse	<i>Halichoeres zeylonicus</i>	Weda.
Checkerboard wrasse	<i>Halichoeres hortulanus</i>	Bunaken.
African coris	<i>Coris gaimard</i>	Bunaken.
Blackeye thicklip	<i>Hemigymnus melapturus</i>	Weda.
Bluestreak cleaner wrasse	<i>Labroides dimidiatus</i>	Bunaken.
Blackspot cleaner wrasse	<i>Labroides pectoralis</i>	Bunaken.
Sixline wrasse	<i>Pseudocheilinus hexataenia</i>	Bunaken.
Sixbar wrasse	<i>Thalassoma hardwicke</i>	Bunaken.
Moon wrasse	<i>Thalassoma lunare</i>	Weda.
Bumphead parrotfish	<i>Bolbometopodon muricatum</i>	Bunaken.
Latticed sandperch	<i>Parapercis clathrata</i>	
Blackfin dartfish	<i>Ptereleotris eoides</i>	Bunaken.
Whitecheek surgeonfish	<i>Acanthurus nigricans</i>	Bunaken.
Striped surgeonfish	<i>Acanthurus lineatus</i>	Weda.
Ringtail surgeonfish	<i>Acanthurus blochi</i>	Bunaken.
Convict surgeonfish	<i>Acanthurus triostegus</i>	Bunaken.
Barred rabbitfish	<i>Siganus doliatus</i>	Weda.
Masked rabbitfish	<i>Siganus puellus</i>	Weda.
Foxface	<i>Siganus vulpinus</i>	Bunaken and Weda.
Bignose unicornfish	<i>Naso vlamingii</i>	Bunaken.
Sailfin tang	<i>Zebrasoma veliferum</i>	Bunaken.
Brushtail tang	<i>Zebrasoma scopus</i>	Bunaken.
Moorish idol	<i>Zanclus cornutus</i>	
Halfmoon triggerfish	<i>Sufflamen chrysopterus</i>	Weda.
Clown triggerfish	<i>Balistoides conspicillum</i>	Bunaken.
Orange-lined triggerfish	<i>Balistapus undulatus</i>	Bunaken.
Titan triggerfish	<i>Balistoides viridescens</i>	Bunaken.
Pinktail triggerfish	<i>Melichtys vidua</i>	Bunaken.
Redtooth triggerfish	<i>Odonus niger</i>	Bunaken.
Papuan toby	<i>Canthigaster papua</i>	Weda.
Spotted boxfish	<i>Ostracion mealeagris</i>	Bunaken.
Black-spotted puffer	<i>Arothron nigropunctatus</i>	Bunaken.
Porcupinefish	<i>Diodon hystrix</i>	Bunaken.

Odonata recorded in Sulawesi between 18th April and 2nd May

<i>Libellago asclepiades</i>	Small numbers encountered at Bantimurung-Bulusaraung NP and at one site in Tana Toraja (South Sulawesi). Endemic to Sulawesi.
<i>Libellago rufescens</i>	Single female photographed at Sungai Pattunuang Asue. Endemic to Sulawesi.
<i>Libellago xanthocyana</i>	Tangkoko (North Sulawesi). Endemic to Sulawesi.
<i>Rhinocypha monochroa</i>	Recorded in small numbers at Bantimurung-Bulusaraung NP, Sungai Pattunuang Asue and Karaenta Forest. Endemic to Sulawesi.
<i>Nososticta flavipennis</i>	Two at Bantimurung-Bulusaraung NP this year.
<i>Agriocnemis pygmaea</i>	Tana Toraja.
<i>Agriocnemis rubescens</i>	Two in Tana Toraja. This subspecies, <i>lunulata</i> , is a shoe-in for a split surely?
<i>Ischnura senegalensis</i>	Remang-Remang and Tana Toraja (South Sulawesi).
<i>Pseudagrion crocops</i>	A few at Bantimurung-Bulusaraung NP (South Sulawesi). Endemic to Sulawesi.
<i>Pseudagrion microcephalum</i>	A very widespread species seen in South Sulawesi.
<i>Pseudagrion ustum</i>	Good numbers at Bantimurung-Bulusaraung NP and in Tana Toraja (South Sulawesi).
<i>ICTINOGOMPHUS celebensis</i>	One at Bantimurung-Bulusaraung NP.
<i>Epophthalmia australis</i>	One female above the waterfall at Bantimurung-Bulusaraung NP (South Sulawesi).
<i>Anax guttatus</i>	A few at Remang-Remang (South Sulawesi). Other <i>Anax</i> there remain unidentified.
<i>Agrionoptera insignis</i>	A few at Tangkoko.
<i>Brachydiplax chalybea</i>	Recorded at Remang-Remang (South Sulawesi).
<i>Brachythemis contaminata</i>	One at Remang-Remang.
<i>Celebothemis delectollei</i>	Single at Bantimurung-Bulusaraung NP (South Sulawesi). Endemic to Sulawesi.
<i>Crocothemis servilia</i>	Only in the south of Sulawesi.
<i>Diplacodes trivialis</i>	Only in the south of Sulawesi.
<i>Hydrobasileus croceus</i>	Egg-laying female at Remang-Remang.
<i>Lathrecista asiatica</i>	One male at Tangkoko.
<i>Nannophlebia aglaia</i>	One briefly at Bantimurung-Bulusaraung NP (South Sulawesi). Endemic to Sulawesi.
<i>Neurothemis manadensis</i>	The widespread <i>terminata</i> -like <i>Neurothemis</i> on Sulawesi was this species.
<i>Neurothemis ramburii</i>	Recorded at most sites in South Sulawesi.
<i>Orthetrum pruinatum</i>	A few on the first day at Bantimurung-Bulusaraung NP. A few at Tana Toraja and Tangkoko too. This subspecies <i>clelia</i> (together with with the Sundaic subspecies <i>schneideri</i>) is probably a good split from mainland Asian forms of <i>pruinatum</i> .
<i>Orthetrum serapia</i>	Widespread and often common in South Sulawesi. A few at Tangkoko.
<i>Pantala flavescens</i>	Frequently encountered.
<i>Potamarcha congener</i>	Bantimurung-Bulusaraung NP, Tana Toraja (South Sulawesi) and Tangkoko.
<i>Raphismia bispina</i>	Good numbers at Remang-Remang (South Sulawesi) this year.
<i>Rhyothemis phyllis snelleni</i>	Small numbers at Remang-Remang (South Sulawesi).
<i>Tetrathemis leptopera</i>	A female at the Bantimurung-Bulusaraung NP. A split from <i>irregularis</i> .
<i>Tholymis tillarga</i>	Common in the late afternoon at Remang-Remang (South Sulawesi). Also seen in Tana Toraja and in the mangroves at Tangkoko.
<i>Trithemis aurora</i>	Only in South Sulawesi at Sungai Pattunuang Asue (South Sulawesi).
<i>Zyxomma obtusum</i>	Common at dusk as we motored back from Remang-Remang. Large numbers hawking the drains of Batuputih at dusk.

Odonata recorded on Halmahera between 26th and 30th April

<i>Rhinocypha tincta</i>	Weda.
<i>Nososticta exul</i>	Weda.
<i>Nososticta halmahera</i>	One male on the last day at Weda. This may be the first time this species has been photographed since it was described in 2015.
<i>Argiocnemis femina</i>	Weda.
<i>Argiocnemis rubescens</i>	Weda.
<i>Teinobasis</i> sp.	The blue-grey member of this genus found on Halmahera is currently undescribed.
<i>Teinobasis rufithorax</i>	Weda and en route to the airport at the breakfast stop.
<i>Agyrtacantha</i> sp.	One at Weda.
<i>Agrionoptera insignis</i>	Commonly recorded at Weda.
<i>Agrionoptera longitudinalis</i>	A few daily at Weda.
<i>Neurothemis manadensis</i>	The common <i>Neurothemis</i> in the lowlands on Halmahera.
<i>Neurothemis ramburi</i>	Just one male at Weda.
<i>Pantala flavescens</i>	Scattered records, mostly along roads.
<i>Rhaphismia bispina</i>	A single male at Weda.
<i>Tetrathemis leptopera</i>	One glorious little male on the last day at Weda.

Mammals recorded in Sulawesi and Halmahera between 18th April and 2nd May

Spinner dolphin	<i>Stenella longirostris</i>	Small group at very close range from the snorkel boat at Weda (Halmahera).
Bear cuscus	<i>Ailurops ursinus</i>	One excellent individual along the Sungai Pattanuang Asue. Three at Tangkoko on the first day and five there the next day.
Moor macaque	<i>Macaca maura</i>	Small troupe at Bantimurung-Bulusaraung NP. At least three troupes seen the next day in the Karaenta Forest.
Sulawesi crested macaque	<i>Macaca nigra</i>	Seen very well on the first day in the coastal forest of Tangkoko. They completely disappeared the next day.
Whitish dwarf squirrel	<i>Prosciurillus leucomus</i>	Two at Tangkoko.
Celebes dwarf squirrel	<i>Prosciurillus murinus</i>	Two in Karaenta Forest.
Gursky's tarsier	<i>Tarsius spectrumgurskyae</i>	Fig tree roost sites visited on a number of occasions at Tangkoko with up to four individuals noted at each roost.

Reptiles & Amphibians recorded in Sulawesi and Halmahera 18th April to 2nd May

Asian toad	<i>Duttaphrynus melanostictus</i>	A few in Tana Toraja. Probably part of a large currently unrecognised species-complex.
a warty frog	<i>Limnonectes cf finchi</i>	Seen after rain and dark at Tangkoko. This species is not <i>finchi</i> (which is confined to Borneo) and awaits formal description.
Iskander's striped tree-frog	<i>Polypedates iskanderi</i>	Noted after rain and after dark at Tangkoko.
White-lipped tree-frog	<i>Litoria infrafronata</i>	Weda.
Common house gecko	<i>Hemidactylus frenatus</i>	Ubiquitous.
Mournful gecko	<i>Lepidodactylus lugubris</i>	One in the Karaenta Forest.
Sulawesi sailfin	<i>Hydrosaurus celebensis</i>	Bantimurung-Bulusaraung NP. No full adult males seen this year sadly but some nice encounters nevertheless.
Water monitor	<i>Varanus salvator</i>	One huge individual at Bantimurung-Bulusaraung NP (South Sulawesi).
Minahassa flying lizard	<i>Draco spilonotus</i>	Two in Karaenta Forest. Several nice males seen at Tangkoko. The homestay garden was the best place to photograph this species.
Green crested lizard	<i>Bronchocela cristatella</i>	One at Weda (Halmahera).
Skinks	<i>Emoia</i> spp.	We saw at least three species on Sulawesi and another, probably new, species on Halmahera. Currently one in three species in this region are unidentified making diagnosis very uncertain...
Forest skinks	<i>Sphenomorphus</i> spp.	One at Bantimurung-Bulusaraung NP Perhaps two species involved but difficult to diagnose due to the lack of work done so far on these lizards.
[Sulawesi box turtle]	<i>Cuora amboinensis</i>	One found dead on the track at Tangkoko.
Green turtle	<i>Chelonia mydas</i>	The snorkel squad were treated to repeated views of perhaps up to 10 of these superb beasts in their element at Bunaken.
Hawksbill turtle	<i>Eretmochelys imbricata</i>	One at Bunaken.
Oriental whip snake	<i>Ahaetulla prasina</i>	One large individual at Karaenta Forest in the south. Probably part of a species complex that is due for splitting.
Jansen's rat snake	<i>Gonyosoma janseni</i>	One on the mangrove boat ride at Tangkoko.

Butterflies recorded in Sulawesi and Halmahera between 18th April and 2nd May

Many butterflies from both Sulawesi but especially Halmahera remain to be identified...

<i>Troides haliphron</i>	Bantimurung-Bulusaraung NP.
<i>Papilio gigon</i>	Bantimurung-Bulusaraung NP and Tangkoko.
<i>Papilio ascalaphus</i>	Sungai Pattanuang Asue.
<i>Graphium anthedon</i>	Bantimurung-Bulusaraung NP.
<i>Graphium agamenon</i>	Bantimurung-Bulusaraung NP, Sungai Pattanuang Asue.
<i>Graphium meyeri</i>	Bantimurung-Bulusaraung NP.
<i>Graphium rhesus</i>	Bantimurung-Bulusaraung NP.
<i>Appias zarinda</i>	Bantimurung-Bulusaraung NP.
<i>Catopsilia pomona</i>	Bantimurung-Bulusaraung NP.
<i>Eurema alitha</i>	Sungai Pattanuang Asue and Tangkoko.
<i>Eurema candida</i>	Weda.
<i>Hebomoia glaucippe</i>	Bantimurung-Bulusaraung NP and Tangkoko.
<i>Faunis menado</i>	Sungai Pattanuang Asue and Karaenta Forest.
<i>Melanitis leda</i>	Bantimurung-Bulusaraung NP.
<i>Mycalasis perseus</i>	Bantimurung-Bulusaraung NP.
<i>Taeneris macrops</i>	Weda.
<i>Ypthima</i> sp.	Tana Toraja.
<i>Lexias aetes</i>	Bantimurung-Bulusaraung NP.
<i>Danaus genutia</i>	Tangkoko NP.
<i>Hypolimnas bolina</i>	Tana Toraja.
<i>Idaea blanchardii</i>	Bantimurung-Bulusaraung NP, Tana Toraja and Tangkoko.
<i>Parthenos sylvia</i>	Bantimurung-Bulusaraung NP.
<i>Junonia atlites</i>	Scattered records.
<i>Junonia hedonia</i>	Scattered records.
<i>Chersonesia rahria</i>	Bantimurung-Bulusaraung NP.
<i>Phalanta alcippe</i>	Bantimurung-Bulusaraung NP.
<i>Vindula dejone</i>	Bantimurung-Bulusaraung NP.
<i>Odontoptilum angulata</i>	Bantimurung-Bulusaraung NP.