

# Irian Jaya — The Last Frontier

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Photos by the Author



The gateway into Irian Jaya was the airport near Lake Sentani. This beautiful setting is the home of the red rainbow, *Glossolepis incisus*.

Over the border into Irian Jaya at long last! Traveling companion Helko Bleher and I peered out of the aircraft window as we descended toward Jayapura, the capital of this remote territory. The panorama below was exciting to say the least. The numerous interconnected arms and secluded lagoons of Lake Sentani lay shimmering in the late afternoon light. This famous lake sprawls extensively at the foot of the imposing Cyclops

Mountain Range a short distance inland from the capital city. It is the exclusive home of the brilliant New Guinea red rainbowfish, *Glossolepis incisus*, a species well known to aquarists (see the May, 1979, issue of *TFH*). Unlike most of Irian Jaya, the fish fauna of this lake has been extensively sampled, mainly by Dutch naturalists during the first two decades of the century. The remaining portion of this sprawling territory has scarcely been explored. Truly it represents

one of the world's last frontiers for freshwater fish collecting.

I had dreamed of visiting Irian Jaya for a long time. Five years earlier plans were carefully mapped out for a month-long expedition, and a collecting permit was obtained from the Indonesian Government. Unfortunately my visa application was declined at the last moment due to political unrest along the Irian Jaya-Papua New Guinea border. The territory has



been off limits to foreign scientists for most of the past decade. This situation only served to strengthen my overwhelming desire to make a visit. Tourists are now permitted to make brief stopovers at the larger district centers such as Jayapura and Blak, so Heiko and I planned a three-week scouting visit, not really assured of how much of the country we would actually get to see.

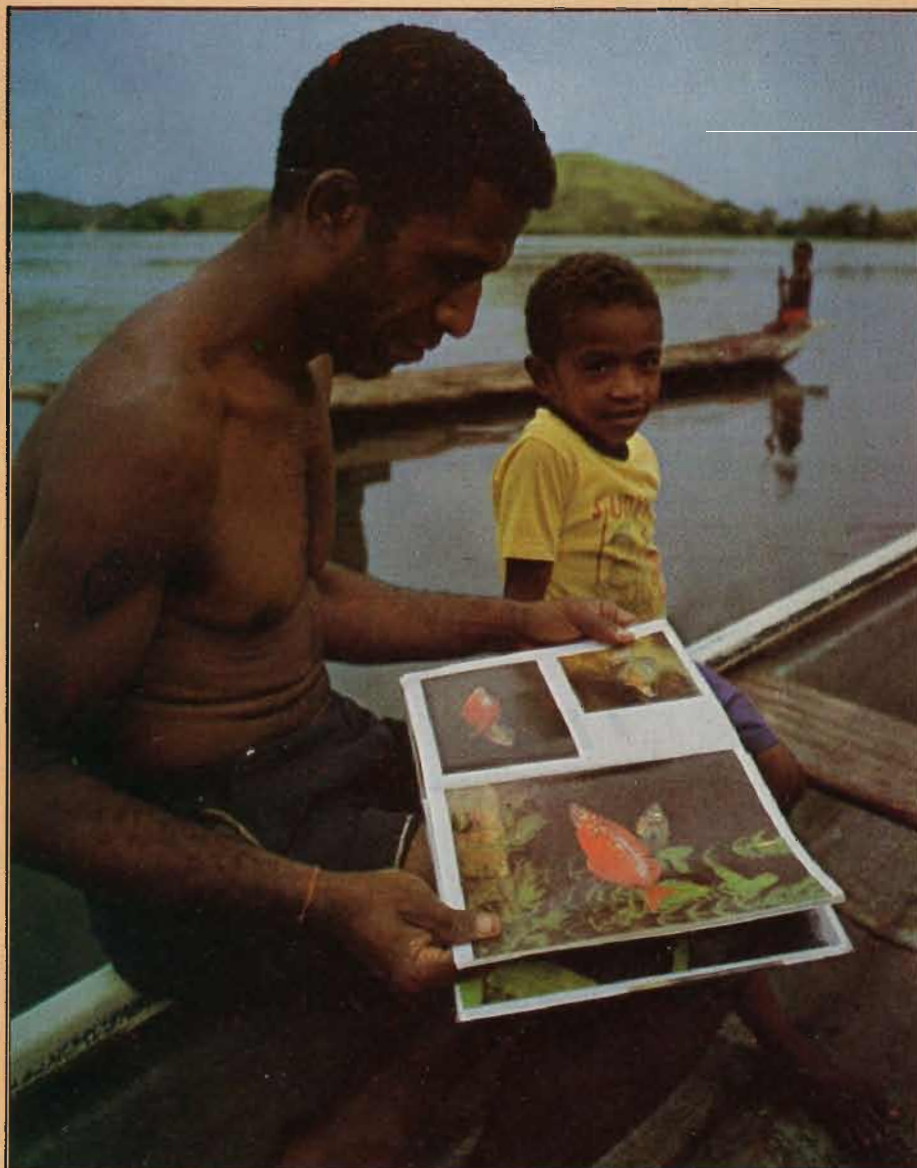
Yes, I had finally made it over the border, but how would we get to the remote collecting areas far removed from the busy city of Jayapura? I naturally had high hopes of making a series of fish collections in previously unexplored streams, and Heiko intended to capture live specimens for transport back to Germany. His passion is to introduce rare or previously unknown fishes to the aquarium hobby, especially species that are particularly beautiful.

It took nearly one full week to obtain the necessary travel documents from the police in Jayapura and to locate a suitable plane to charter. In the meantime, we collected rainbowfishes from Lake Sentani and purchased museum specimens of gudgeons, gobies, and freshwater cardinals (genus *Glossamia*) from the Sentani market. Both Heiko and I are devout natural food addicts, and we were therefore delighted to discover a wealth of tropical fruits at the local markets. Our hour-long breakfasts each day became a ritual and included a variety of exotic items . . . mangoes, guavas, jackfruit, rambutans, red-fleshed papaws, and several types of bananas, to name just a few. We were also awaiting the arrival of Dr. Wolfgang Tins, an ecologist and professional photographer from Munich. Heiko was producing a documentary film for German television and had hired Wolfgang to handle the camera chores.

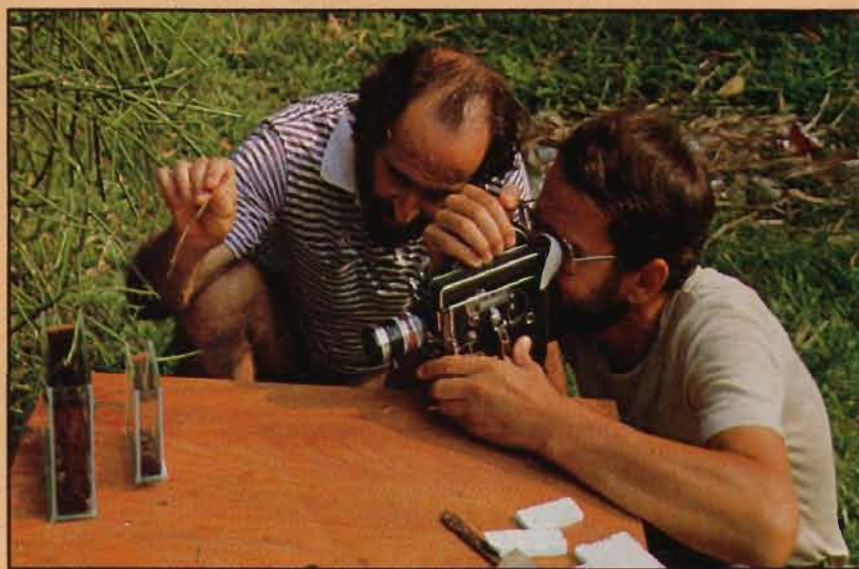
Wolfgang finally arrived on the weekly flight from Papua New Guinea. The next day we carefully weighed and loaded our bulky collecting and photographic gear into the single-engine Cessna chartered from the Seventh Day Adventist



Above: Each drag of the net at Lake Sentani yielded a plentiful catch of red rainbows. Below: This man helped in the capture of the red rainbow at Lake Sentani. The recently published book *Rainbowfishes of Australia and Papua New Guinea* proved an excellent means of communication.







Top: Although the collecting party's vehicle was bogged down in the Nabire River for some time, the party did manage to find ten species of fishes at this location. Immediately above: Heiko Bleher assists Dr. Wolfgang Tins during a filming session at Nabire. Below: Curious visitors surrounded the plane as the author packed preserved fishes prior to takeoff on the Vogelkop Peninsula.



Mission at Lake Sentani. I couldn't help wondering if this tiny aircraft would be able to get off the ground with this enormous load . . . and what would happen after we added bulky containers of live fishes. Oh well, the important thing was that we were now mobile.

The first couple of days we worked out of the Sentani airport, making short hops to locations along the Tami River (near the Papua New Guinea border) and to headwater streams of the extensive Mamberamo River system. We were unsuccessful in finding the Tami River rainbowfish (*Glossolepis pseudoincisus*), mainly because the river and its tributaries were swollen from heavy rains. We did, however, collect some very beautiful examples of the northern New Guinea rainbow (*Melanotaenia affinis*) and the barred rainbow (*Chilatherina fasciata*) from the Mamberamo system. Both species are widely distributed throughout northern New Guinea and are represented by numerous local color variations.

The Central Highlands of Irian Jaya had never been collected previously, and we held high hopes of new discoveries. Our pilot dropped us for the weekend at Wamena, the district headquarters, located in the huge Baliem Valley. However, the next two days proved frustrating. The area abounded with small slow-flowing streams, seemingly a perfect habitat for rainbowfishes, gudgeons, and gobies. In spite of much searching, we only succeeded in collecting two introduced fishes, tilapia and carp. We could scarcely believe the complete absence of native fish species. On our second day we walked 30 miles on a circuitous route that followed the main Baliem River north of Wamena. Surely we must find something of interest, but again only tilapia and carp were netted! We returned to Wamena late in the afternoon, totally exhausted and incredibly thirsty. We had not taken along sufficient water and were reluctant to drink the untreated supply from local villages. That evening both Heiko and Wolfgang





This is a new species of *Melanotaenia* captured at Fruata and other localities on the Vogelkop Peninsula.

became ill and turned in early without supper. From this point on things could only get better!

The next morning we eagerly awaited the arrival of our pilot. He soon appeared out of the highland mist, and we were underway once again. We had planned to fly south to Agats, a remote area made famous by the mysterious disappearance of Michael Rockefeller. However, this plan was thwarted by a blanket of bush fire smoke that abruptly halted our progress down the tortuous Baliem Canyon. We tried twice to penetrate the dense black curtain and on both occasions were forced back to Wamena because of zero visibility. We eventually decided to head toward the western end of the island. The ensuing hour and a half flight carried us over some of the finest mountain scenery on earth. Cruising at an altitude of 13,000 feet, we marveled at breath-taking views in every direction. To our left the Carstensz

Pyramid, covered with vast glaciers, loomed skyward. Nearby Mount Jaya is the highest peak in New Guinea, with an elevation of 16,500 feet. Directly below we sighted a chain of emerald green alpine lakes, and to our right were jagged sawtoothed ridges sculpted by ancient glaciers. The setting could well have been the Swiss Alps or Rocky Mountains. Indeed, it was difficult to believe we were still in the sweltering tropics of New Guinea. We landed for a brief stop at Enarotali, district center for the Paniai (Indonesian name) or Wissel (Dutch name) Lakes. Now the beautiful mountain scenery was veiled by dense smoke, the result of deliberate burning by the residents, who utilize this method to clear away vegetation for agricultural purposes. We had just enough time to dip our nets in Paniai Lake, but again fishing in the Highlands proved a disappointment. Only carp were netted, and the natives said this was the only fish to

be found.

After another hour of flight we reached our destination for the day, the seaport of Nabire. This would be our departure point for the Vogelkop or "Bird's Head" Peninsula lying immediately to the west. We had two days at Nabire to formulate plans for the exploration of the remote peninsular region. This also allowed time for collecting in the Nabire River, actually a small creek that flowed through dense rainforest just north of the settlement. We had no means of transport and were thus forced to throw ourselves on the mercy of that unique brand of unscrupulous mercenary otherwise known as the Indonesian taxi driver. After some hard bargaining, we hired a cab for two hours at a ridiculously inflated price. Although we were happy with the resulting fish collection, the driver proved totally inept and ultimately bogged the vehicle in midstream during what should





Above: A native boatman paddles Heiko across one of the Ajamaru Lakes. Below: This stream near Ajamaru Village yielded many *Melanotaenia boesemani* and a single specimen of a new blue-eye.



have been a routine crossing of a well-traveled ford. On arrival back at the hotel, the driver insisted we pay for the extra hour spent digging the vehicle free. Heiko balked, and in the ensuing argument our Indonesian friend pulled out a machete to back his demands. This quickly convinced us that it might not be a bad idea to pay the extra fee after all!

Our main objective on the Vogelkop would be to visit the Ajamaru Lakes, home of two species of rare rainbowfishes. The problem was figuring out how to get there. We first entertained thoughts of walking a distance of about 21 miles from the nearest coastal settlement. However, our pilot discouraged this approach. He said the terrain was extremely rugged and reckoned it would be virtually impenetrable. He compared the topography to an inverted egg carton, and later after flying over the region we found this description a fitting one indeed. Another possibility would be to visit Sorong, a petroleum center at the extreme western end of the peninsula, in hopes of chartering a helicopter from one of the oil companies. We knew this would be difficult to organize without advance notice, and even if it were possible the cost of such an excursion would most likely be prohibitive. Just as we began to have serious doubts about reaching the lakes, our prayers were answered in the form of a Swiss pilot who worked for the Catholic mission at Nabire. He had extensive knowledge of the Vogelkop Peninsula, and the evening before our departure he penciled in a number of unmarked landing strips on our detailed aeronautical charts. To our astonishment, one of the strips was located within 3 miles of the Ajamaru Lakes. He assured us that the strip was usable and that he made several stops there each year.

We boarded the Cessna and headed west after a two-hour delay caused by the retrieval of our passports from the Nabire Police Station. After the non-productive Highlands excursion and hassels of Nabire, we eagerly anticipated the



next few days. Certainly we would find new species in this seldom-visited region. With this prospect foremost in our thoughts, we made two brief collecting stops enroute to Ajamaru. The first was at the village of Fruata on the Fak Fak sub-peninsula of the Vogelkop. To my knowledge no previous collections had been obtained from this area. Our arrival was greeted with much enthusiasm from the villagers, who helped carry the collecting gear and directed us to a nearby stream. Heiko and I quickly unpacked the 6-foot seine as Wolfgang filmed the proceedings. The results of the first drag were dramatic . . . two new species, a *Melanotaenia* rainbowfish and a teraponid grunter (genus *Ephraestus*), the latter displaying a beautiful striped pattern. Subsequent scoops captured *Oxyeleotris* gudgeons and a possible third new species belonging to the goby genus *Glossogobius*. Unfortunately we could only spare one hour on the ground and were soon airborne enroute to the next stop, the village of Merdai situated directly north in the eastern portion of the Vogelkop. There we repeated the performance of Fruata and collected basically the same fishes. The new rainbow and grunter were subsequently encountered at widely scattered localities throughout the Vogelkop Peninsula.

When we reached Ajamaru in mid-afternoon our pilot circled the two main lakes, which extend for about 6 miles. One of them was nearly dry, but the main lake looked promising. It was heavily vegetated, with numerous lagoons and small embayments along the shore. The rather inconspicuous dirt runway was located after a brief search, and we were soon on the ground giving final instructions to our pilot for a "pickup" two days hence. The drone of the plane faded over the horizon as I wondered aloud how we would ever manage to cart our bulky gear, comprised of numerous bits and pieces totaling nearly 500 pounds. Eventually some villagers appeared and we hired them to assist us. We then walked about 3 miles down the



Eleven species of fishes were recorded at Lake Holmes in the Lower Mamberamo River system.

mountainside to Kambuaya Village, where we obtained a crude hut and arranged for some food to be cooked.

Early the next morning we set off for the main lake, about a two-hour walk from Kambuaya. On arrival at Ajamaru Village we managed to hire three small canoes. At last we were ready for the task of capturing the Ajamaru rainbows. Although the two species were first collected in 1955 by Dr. Marianus Boeseman, former curator of fishes at the Leiden Museum in Holland, they were not officially described until the year 1980. The fishes were named *Melanotaenia boesemani* and *M. ajamaruensis* in a publication that I coauthored with colleague Norbert Cross.

We searched for more than one hour before finally sighting rainbowfishes. We were surprised and absolutely delighted by the brilliant colors displayed by large males. The living colors of the Ajamaru rainbows had yet to be documented, and we were therefore keen to obtain live specimens for photographic purposes. Although we sighted huge schools while snorkeling among weed beds, our efforts to capture specimens

proved futile. The problem was a combination of too much water depth and dense vegetation, making it all but impossible to drag the nets. We were totally frustrated after two hours of unsuccessful fishing and decided to try elsewhere. One of the boatmen then took us to a small artificial pond in the village, and we at long last succeeded in catching about 30 bright colored specimens. There was little remaining daylight, so we hastily hired several young men to help us carry the live fishes and gear back to Kambuaya. A short distance beyond Ajamaru Village the trail crossed a crystal-clear stream where we spotted a large aggregation of rainbows milling about close to shore. The nets were once again unpacked, and Heiko proceeded upstream with the lead end in tow. We jammed the lead line of the net shoreward, quickly lifting the captured fishes onto the bank. We had an impressive catch of 20 rainbows, including several exceptionally colorful males. Several more hauls added another 50 specimens, all rainbows except a lone blue-eye (*Pseudomugil*) that I immediately recognized as yet another new species.

The following morning we spent





Above: The most abundant fish at Lake Holmes was the spangled gudgeon, *Ophieleotris aporos*. Below: Tributary streams of Lake Holmes were inhabited by this undescribed species of *Melanotaenia*.







This unusual color variation of the barred rainbowfish, *Chilatherina fasciata*, was abundant at Lake Holmes.

several hours photographing the live fishes and packing them for the journey back to Jayapura. We were confident that both of the rainbow species were among our catch, but when a sample of preserved specimens was eventually studied back home in the laboratory I discovered that only *M. boesemani* was represented. The fish we had mistaken for *M. ajamaruensis* was actually the female of Boeseman's rainbow.

We made two more collecting stops on the Vogelkop Peninsula and procured additional specimens of the rainbow and grunter first taken at Fruata. After an overnight stop at Manokwari on the northeastern edge of the peninsula, we flew toward our final collecting destination, Lake Holmes or Danau Biru ("Blue Lake" in Indonesian), situated in mountainous terrain in the lower Mamberamo system. The mighty Mamberamo flows for more than 600 miles, ranking among the three largest rivers in New Guinea along with the Fly and Sepik. The only collections of significance from this vast drainage were made by the Dutch over 60 years ago. Before our departure

from Jayapura eight days earlier we had made arrangements to visit the Summer Institute of Linguistics, a mission settlement located on the shores of picturesque Lake Holmes. The Institute maintains a luxurious (or so it seemed after our lodgings of the past week) guest house that served as our headquarters for two days. The S.I.L. community was extremely hospitable, and due largely to their help we accomplished a reasonably thorough survey of the local fish fauna. Eleven species were recorded from the main lake complex and tributary streams, including a magnificent rose-red and yellow variety of the barred rainbow (*Chilatherina fasciata*) and another new *Melanotaenia*. The spangled gudgeon (*Ophieleotris aporos*) was the most abundant fish along the heavily vegetated margin of the lake.

There was scarcely a moment to spare during our stay at Lake Holmes. The days were spent collecting and exploring the lake with mask and snorkel. In the evenings we presented a lecture on New Guinea fishes and returned to the lake for more collections by flash-

light. On the final morning Heiko and Wolfgang busily photographed live fishes while I listed the local "Bauzi" names for the Lake Holmes species. These were obtained from S.I.L. linguist Dave Briley. We also had to repack the entire accumulated catch of the last few days, including the precious cargo of Ajamaru Lake rainbows.

The very productive collections from the Vogelkop Peninsula and Lake Holmes were a fitting end to three long months of field work in New Guinea. Heiko and I both paid a heavy price for our labors in the form of severe malarial infections that surfaced after we returned to our respective homes in Germany and Australia. Even this setback seemed a small price for the adventure we had experienced. Thanks to Heiko's thorough knowledge of handling and transporting aquarium specimens, all the fishes survived the trip back to Frankfurt. He subsequently sent a small shipment to me in Perth. The stellar attraction of my fishroom is the half dozen specimens of *M. boesemani*, precious souvenirs from New Guinea's last frontier. 