Dear Friends and Family,

This year started off rather poorly, with significant health issues for both of us, which kept us in El Paso a month longer than planned. About the only consolation was that we got to watch the Winter Olympics as they occurred, which was fun – usually we see Olympics many months after the fact. We finally got off in late February and headed for Florida, a bit less than four weeks before a trip to Ghana, in West Africa. It was a bit early for field work, so we spent these first few weeks recovering and paddling. We chose to fly out of Jacksonville, FL, because of its good COVID testing and flight schedules. This was the first time we have attempted an international trip while on a road trip, and it was a challenge to fit everything we needed in the camper, but it all went off perfectly.

Traveling to Ghana during the pandemic was a logistical nightmare, but the trip turned out very well. There were only two other participants, our friends Rhys and Terry. Ghana is currently the best destination in West Africa for natural history. It is a bustling country with a rather low poverty rate, and English is spoken everywhere. The weather was extremely hot and humid, with occasional heavy rains. Insects were not much of a problem except for getting caught in extensive ant swarms a few times. During the three-week trip Eileen and I saw 345 species of native birds, of which about 170 were new for us, and we added four new avian families, represented by Whitenecked Rockfowl, Egyptian Plover, Western Nicator, and Violet-backed Hyliota. We also did well on mammals, finding 20 species, nearly all of which were new to us, and seeing two new families, those of Yellow-winged Bat and Pel's Anomalure. One of the trip highlights was tracking and seeing Forest Elephants on foot – don't try this at home! The other major group attracting our attention was butterflies; Ghana is famous for them, having over a thousand species. Eileen photographed about 30 species as time permitted, many of them being quite large and showy.

Once back in Florida, we had about two weeks before beginning our serious field work at the beginning of May. This time was used to process all the records from our trip; edit, identify, and caption our photos; write a blog entry about the trip; and repack for life on the road. During this time we got our first chance to try out our new air conditioner, finally installed over the winter after a year and a half wait due to COVID supply disruption. It does require 120V AC to run, so we can only use it in campgrounds with electric hookups, but it works very well. We ended up using it frequently during the year, especially when we returned to Florida in late summer.

Our spring route took us up the coast to North Carolina, inland to the Appalachians in South Carolina, northward along the mountains to West Virginia, back east to the Delmarva Peninsula, and finally to Rochester, NY to see friends. The botanizing on this leg of the trip was excellent; some of our most exciting finds were Coastal-Plain Rosebud Orchid in Florida, Oconee Bells in South Carolina, and Whorled Pogonia and Weft Fern in Virginia, the latter a hard-to-find moss-like fern (*Crepidomanes intricata*). But best of all was finally seeing, in North Carolina, the most famous of all carnivorous plants, Venus' Flytrap! Farther north, we spent an enjoyable week in

New River Gorge National Park, WV, the last road-accessible national park in the U.S. we had not visited. Also in West Virginia, we finally connected with Appalachian Cottontail, a long-sought species, which we saw exceptionally well.

We spent a month and a half based in Rochester, camping in the driveway of our friends Andrea and Allan, whose hospitality and company we greatly appreciated and enjoyed. One foray was to Algonquin Provincial Park in Canada, where we had superb paddling and saw our second and final new mammal of the road trip, an engaging Hairy-tailed Mole. Another excursion was to the Adirondacks, where we visited old haunts and saw our friends Rob, Tam, and Sierra from California, who were vacationing there. A third trip was a 12-day bird tour to southern Brazil, featuring the Pantanal, one of the largest wetlands in the world. Our principal target there was Jaguar, which can reliably be seen in the late summer, when water levels are right for the animals to hunt along the shorelines of rivers for caiman and capybara. From boats on the rivers, we saw and photographed seven magnificent Jaguars and observed tracks, scat, and behaviors such as dragging a caiman carcass; drinking from the river; resting; and actively searching for prey along the river shoreline! Our favorite bird of the trip was the stunning Blue and Yellow Macaw, which we saw coming in to roost in numbers at a lake half a day north of the Pantanal, in an area where we birded for several days on the edge of Amazonia. Other major highlights were great looks at Lowland Tapir, and seeing the extremely rare Cone-billed Tanager. Over 12 days we saw 314 species of birds, 106 of which were new for us, and 19 mammal species, of which 14 were lifers.

Leaving Rochester during the first week of August, we drove directly to Florida in three days to and began an intense two months of botanizing, the first seven weeks in Florida (cut slightly short due to hurricane Ian) and the balance more or less on the way back to El Paso. Our two primary native plant-related goals for the North American region (north of Mexico) are to see 90% of the genera, and to see at least half the genera in every family. We made good progress on both goals this year. The Weft Fern mentioned earlier was the third of five genera in its obscure family and put us at 50% of genera or better in 235 of 239 families. Our 31st native orchid genus, in Collier Co., FL was provided by the spectacular Ghost Orchid, bringing us to the 50% threshold in that challenging family. We found two extremely rare ferns in Miami-Dade Co., FL, each the only North American representatives in their respective families, which I did not think we'd ever be able to see – thus checking off both families! The first was Holly-Leaf Fringed Fern (*Lomariopsis kunzeana*), and the second Wedgelet Fern (*Odontosoria clavata*), my most wanted plant species of all. Both of these searches were phenomenal experiences, and our success in the latter case was due entirely to the kindness of a local expert supplying directions. This leaves us only one remaining family, Molluginaceae, to go.

In total, during the year, we conducted 139 vascular plant genus searches, of which 90 were successful (65%). We also found 13 genera serendipitously, and so added a total of 103 genera, out of 122 targets (84%). We have now seen 85% of the ca. 2108 genera in North America north of Mexico, having added almost 5% this year. On non-botanical topics, we had not previously spent much time in Florida during the hottest months, so several species we have seen infrequently in the past were encountered regularly, including Gopher Tortoises, Florida Tree Snails, and

White-crowned Pigeons. In Lake Kissimmee State Park, we had a day in camp, and the Southern Dog-Day Cicadas were so loud that Eileen had to wear noise-canceling headphones to sit outside! We also spent several days looking for shells in prime locations along the Gulf Coast. Some of our favorites were Lacy Murex, Lightning Whelk, Lettered Olive and Banded Tulip. A bonus from this activity was enjoying beach birds such as Red Knot, Wilson's Plover, and Sandwich Tern.

About four weeks after getting back to El Paso, we left on a birding trip to New Caledonia and New Zealand, again meeting up with our friends Rhys and Terry. New Caledonia is a remote island about 1200 miles northeast of Sydney, Australia and 1500 miles north of New Zealand. New Caledonia and New Zealand are actually part of the same landmass, Zealandia, an otherwise submerged "continent" about half the size of Australia, which broke off from the supercontinent Gondwanaland 80 million years ago. Of the roughly 250 families of birds in the world, seven occur only in Zealandia, hence this trip. We used an excellent local guide in New Caledonia, Isabelle Jollit of Caledonia Birds, who showed us all 26 avian island specialties! The highlight of our four days here was seeing Kagu, a charismatic bird in its own family, which occurs only in New Caledonia. We also were privileged to see the most taxonomically significant plant on the island, restricted to the island's highlands: *Amborella trichopoda*, the only extant member of the most ancient lineage of the world's 300,000 flowering plants.

Our birding tour in New Zealand started well enough, with a visit to beautiful Fiordland National Park, and excellent birding on Stewart Island off the southern tip of the South Island. The majority of birding in New Zealand is done on smaller islands, because so many native birds have been extirpated on the North and South Islands by introduced mammalian predators. On Stewart Island we saw our primary target, Southern Brown Kiwi, bas it fed at night. This was our 41st and final avian order, and so was a significant milestone for us! Unfortunately, COVID spread through the group, which finished with only half the number of participants and guides who started. We ended up missing the last third of the trip, including the entirety of the North Island. As some consolation, we were able to see all but one of the potential new bird families, and our most wanted mammal possible in the region, Sperm Whale, after a thrilling chase following detection of their sonar clicks via underwater microphone!

Our contact info, which has not changed, is given below. We'd love to hear from you! Happy holidays –

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Clockwise from top left: Venus' Flytrap, North Carolina; Widespread Forester, Ghana; our 36th anniversary, courtesy of Dick Wheeler; Common Loon on nest, Ontario; Kagu, New Caledonia; Weft Fern, Florida.