

TO CALIFORNIA WITH JEPSON'S "PHYTO-JOGS" IN 1913

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ABSTRACT

The Second International Phytogeographical Excursion of 1913 was initiated by University of Chicago's Henry Cowles and represented the first international party of plant geographers to visit the United States. Among the twelve Europeans who participated were Cambridge University's Alfred Tansley, first president of the British Ecological Society (and later to coin the word "ecosystem"), and Adolf Engler, taxonomist and biogeographer of Berlin's Royal Botanical Gardens. Arriving in New York City at the end of July, the excursionists (nicknamed the "Phyto-jogs" by Willis Jepson) traveled by train to the West Coast, with stops in a variety of ecosystems. After arriving at San Francisco Bay from the Pacific Northwest in early September, the Phyto-jogs, guided by University of California's Jepson, proceeded to Yosemite National Park for field trips and a famous group photograph among Mariposa Grove's Giant Sequoias. On September 12 in Oakland, several of the European scientists presented major lectures at the California Botanical Society's first annual banquet. The following days included visits to sites of local interest, including Burbank's experimental garden, Mount Tamalpais and Muir Woods with Alice Eastwood, and the Carnegie Institution's Coastal Laboratory at Carmel. The last two days covered the California desert, including the Salton Sea, and Tucson's Carnegie Desert Laboratory within the Sonoran Desert. A year later Professor Tansley, reflecting on the phytogeographical diversity of America and the varied researches of its many energetic ecologists, wrote: "In that vast field of ecology America has secured a commanding position."

Key Words: California Botanical Society, Alice Eastwood, Adolf Engler, International Phytogeographical Excursion of 1913, Willis Jepson, Mt. Tamalpais, Alfred Tansley, Yosemite.

It was indeed a memorable congregation of men and women gathered for a photograph at the base of the General Sheridan Tree, a Giant Sequoia (*Sequoiadendron giganteum*) in Yosemite National Park's Mariposa Grove. The year was 1913, the date September 9. The special occasion was a photo opportunity for, as Professor Jepson nicknamed them, "The Phyto-jogs" (Jepson 1913a, p. 201), members of the first international plant geography tour to visit North America, including California: "The Second International Phytogeographical Excursion". This photographic memorabilia first appeared in print just a tad over ninety years ago, on page 12 of the first issue (1916) of *Madroño*, journal of the newly formed California Botanical Society (Fig. 1).

It is easy to pick out three of the women in the group photograph, wearing jaunty white hats, two with white blouses and long skirts. Edith Tansley on the far left side of the picture was the wife of eminent plant ecologist Alfred G. Tansley from England's Cambridge University Botany School, seated below her with hands clasped. This very year Professor Tansley became president of the world's first ecological society (British Ecological Society), and two decades later (1935) he would introduce an important new word and concept into ecology: "ecosystem". Next to Mrs. Tansley is Dr. Marie Brockmann-Jerosch, whose botanist husband Henryk (above and to her left, wearing a hat) and she were from Zurich, Switzerland. Dr. Edith S. Clements is on the

opposite side of the group, below her husband Professor Frederic E. Clements (he with black tie, black hat band, and book in hand), botanist from the University of Minnesota who was gaining fame for his array of new ecological ideas and terms associated with plant communities and succession. Edith Clements herself would later lay her claim to West Coast fame, writing a lengthy article for *National Geographic* (May issue, 1927) on "Wild Flowers of the West", profusely illustrated with her beautiful color paintings, to be embellished into a book in 1928, *Flowers of the Coast and Sierra*.

The distinguished looking, rotund gentleman on Edith Clements' right, with white waistcoat over his paunch, is Dr. Adolf Engler, plant classifier, editor, and biogeographer, from the Royal Botanical Gardens and Herbarium in Berlin. His system for taxonomically arranging herbaria was used worldwide for years, as was the monumental *Vegetation der Erde* that he edited. Beside Engler is Professor Carl Schröter of the Swiss Institute of Technology's Botanical Museum in Zurich, with long gray beard and mustache, his fedora's brim pushed up, looking more like an old mountain man than a botany professor. Between Schröter and Mrs. Brockmann-Jerosch, with arms folded, is University of Chicago's plant ecologist Dr. Henry C. Cowles, the editor of the *Botanical Gazette*, who like Clements was developing ideas on plant succession, especially based on his work with Lake Michigan sand dunes.



FIG. 1. Group Photograph of Phyto-jogs at The General Sheridan Tree, Mariposa Grove, Yosemite National Park, California.

Among others were Professor Carl von Tubeuf of Munich's Forestry Research Institute (kneeling on Professor Tansley's right, with a drooping handle-bar mustache to match Schröter's); tall Dr. Carl Skottsberg of the University of Uppsala, Sweden, on Mrs. Clements' left, with forearm raised, and possibly above her University of Amsterdam's Dr. Theodoor J. Stomps. Sitting two to the right of Dr. Tansley in the photograph is Dr. George D. Fuller (University of Chicago), with Dr. Eduard Rübel of Zurich behind him, and seated to Fuller's left Dr. Ove Paulsen of Copenhagen's Botanical Museum, Denmark. Behind Edith Tansley is moss authority Dr. George Nichols of Yale University; and mostly obscured behind Skottesberg, Dr. Harvey Hall, co-author with his wife Carlotta of *A Yosemite Flora* (1912). Elsewhere is Professor Jean Massart of Belgium's Botanical Museum. Meanwhile, front and almost center, sitting on the ground to Tansley's left, in boots, suit coat, white shirt and black tie, holding his western hat by one fist, is U.C. Berkeley's botany professor Willis Jepson, "Chairman of the California Committee of Arrangements" and first president of the new California Botanical Society.

The First International Phytogeographical Excursion, organized by the British Vegetation Committee and held in Great Britain in August, 1911, proved to be a great success. One participant, American botanist Cowles, was inspired to

organize a similar international excursion to introduce European botanists to the American flora and become familiar with some of the New World plant ecologists and their research. This 1913 excursion would start on the East Coast and cross the country by train to the West Coast, with a number of appropriate stops, and returning through the Southwest (Tansley 1913, 1914; Nichols 1914). As it turned out, there would be nearly two hundred participants, including the dozen foreign visitors, the American phytogeographical hosts, and researchers at the various stops.

Almost a year ahead of time Cowles had contacted professors Willis Jepson at the University of California (Berkeley) and LeRoy Abrams at Stanford University about the California visit. Soon a committee was formed to put together a California itinerary that would appeal to botanists interested in the developing fields of plant ecology and biogeography. The premier visit would be to Yosemite National Park and then to one of the coast Redwood areas. With respect to the latter, the Stanford botanists—George James Pierce, William Cooper, and especially Abrams—favored Big Basin (California Redwood Park) and, understandably, the Stanford campus, while the Berkeley and California Academy of Sciences savants favored Muir Woods and Mt. Tamalpais. There were suggestions for a bayside brine pond tour by Professor

Pierce, and a marine algal field trip led by Professor Setchell of the University of California at Berkeley. James Barr, manager of the forthcoming (1915) Panama-Pacific International Exposition at San Francisco, optimistically hoped a presentation could be made for the "distinguished visitors", extolling the proposed attractions of the forthcoming exposition, to drum up interest in international attendance. However, this presentation never materialized. After San Francisco, the excursion was to proceed to the Carnegie Institution's new Coastal Laboratory at Carmel, with a return east by way of the Carnegie Institution's Desert Laboratory in Tucson, Arizona.

Now at last, in New York City during the closing days of July, 1913, many members of the European traveling party convened and were armed with six detailed sectional programs describing the impending continental tour. Shortly they were whisked off to see an "edaphic prairie" on Long Island, the pine barrens in New Jersey, stop-offs at the botanical garden in Brooklyn and the more famous one in the Bronx. Then the participants were on their way to Chicago for a welcome by University of Chicago's botanist John M. Coulter, field trips to remnant low and high prairie, a beech-maple woodland, and exploration of the Lake Michigan sand dunes where Cowles had pursued his research.

Early the second week of August the excursion arrived in Lincoln, Nebraska. Greeted by Professor Charles Bessey and a temperature of 108 degrees in the shade, there was the Commercial Club's afternoon tour of the Lincoln Prairie, accompanied by Nebraska's governor, followed by Dr. Raymond Pool's lantern-slide lecture on Nebraska sand hills vegetation. In mid-August several days were spent around a short-grass, high-plains agricultural experiment station near Akron in southeast Colorado, hosted by Colorado ecologist Dr. Homer Shantz and joined there by Frederic Clements and his wife. Next was the Pikes Peak region, first with a day in the unique ponderosa pine "Black Forest", which extends eastward on an elevated sedimentary plateau surrounded by plains grassland.

The following week was with the Clements at Minnehaha-on-Ruxton summer resort, their mountain ecology research retreat (the Alpine Botanical Laboratory), alongside the famous Pikes Peak Cog Railway several miles up Engelmann Canyon (named after famous botanist George Engelmann of St. Louis). Here during the week the Phyto-jogs were joined by Dr. Engler from Berlin. Next, aboard the Denver and Rio Grande train it was across the continental divide at Tennessee Pass, through the Great Basin shadscale desert, and up Price River Canyon to Salt Lake City. There, after The

Commercial Club's luncheon, a visit through salt-flat brushland ended with a quick saline dip at Saltair Beach alongside the Great Salt Lake. Sunday, August 24, was spent to the south in the Tooele Valley, where Department of Agriculture botanists had carried out an intensive floral study just a year earlier.

The next week involved railroading through sagebrush and forest lands to the state of Washington, especially around Mount Rainier, then into Oregon by train on September 2. The three days at Medford, hosted by the Commercial and University clubs, included a caravan of seven private autos on a junket into coniferous forest surrounding volcanic Crater Lake, and a tour of Medford's orchards, famous for their pears.

On September 6 the Southern Pacific Railroad's "Shasta Limited", bound for California, departed south into the Siskiyou Mountains, through the Siskiyou Tunnel; and while dusk fell, "caught our last glimpse of the magnificent snow-covered summit of Mount Shasta" (Tansley 1914, p. 271). At dawn the Phyto-jogs were to look out the train's western windows onto the shoreline of San Francisco Bay.

On Sunday morning, September 7, 1913, the party of European and American natural scientists were greeted by Professor Jepson at the 16th Street train station and headed on for breakfast at the pier. For each person, a California excursion program had been prepared, including the travel schedule as well as detailed botanical and geological information. The Southern Pacific Company had put together a special scenic folio, "I.P.E. in America", individually embossed with each participant's name, containing twenty large, beautiful photographs "showing some of the more remarkable features of the State", including Mt. Shasta, Muir Woods, Yosemite's El Capitan, and Palm Canyon in the Colorado Desert foothills (Jepson 1913b, no. 527).

The original trip itinerary had been so specific that it listed five-minute arrival and departure times for some stops. Naturally the fine-tuned schedule soon became obsolete. Monday, the first full excursion day in California, was to be spent touring the Mount Tamalpais region. But an eleventh-hour change of plans "threw out of joint" the program Jepson had meticulously prepared for the printer. Instead, immediately after Sunday breakfast the entourage departed by train for El Portal, gateway to Yosemite National Park (Jepson 1913a, 1913-1914).

In the hot, dry San Joaquin Valley there was a lunch stop at Tracy. Transferring to the Yosemite Valley Railroad at Merced, enthusiasm heightened with the entry into Merced River Canyon and the changing foothills panorama of blue oak (*Quercus douglasii*), gray pine (*Pinus sabiniana*), California black oak (*Quercus kelloggii*), and a patchwork of buckbrush (*Ceanothus cuneatus*),

manzanita (*Arctostaphylos*) and chamise (*Adenostoma fasciculatum*). Next morning at the El Portal Hotel the Yosemite Transportation Company's largest (seventeen-passenger) horse-drawn stage and a smaller one picked up the excursion members, and three hours were spent, guided by Willis Jepson and Harvey Hall, touring Yosemite Valley, with a lunch stop at historic old Sentinel Hotel near Yosemite Falls. Then it was into two small stages of the Big Tree Line, heading south with time for a photo opportunity of the valley from Artist's Point, on past Chinquapin Junction as the sun set, and to the Wawona Hotel for the night, pausing "occasionally for a few minutes at points of interest."

Tuesday was the all-day trip southeast to the lower and upper stands of giant sequoias in Mariposa Big Tree Grove. At first "sight of the great giants", Dr. Schröter "took off his hat and waved it wildly!" (Jepson 1913-1914, p. 2). Here four leisurely hours were spent in the impressive forest. Jepson, anticipating that the Phyto-jogs would cherish a diminutive sequoia cone, unreachable from the high branches, had arranged with "Mr. Zeus, a Greek citizen, and coworker with Mr. Franklin and Mr. Farraday, to strike gently the top" of the Indiana Tree, to provide cones for inspection and collection (Jepson 1916, p. 14). At the General Sheridan sequoia near Big Tree Cabin, an 1885 replica of grove-discover Galen Clark's old homestead, official Mariposa Grove photographer Baxter took the memorable group picture. In the lower grove, eleven Phyto-jogs clambered atop the base of The Fallen Monarch for another picture, matching the one in their Southern Pacific Company's scenic folio portraying the U.S. Army's Sixth Cavalry lined up on and alongside the Monarch with many of their horses. Late afternoon came the return to Wawona Hotel and a welcome night's sleep.

The following day, September 10, the troupe was off to the Yosemite high country at Glacier Point, through beautiful stands of tall California red firs (*Abies magnifica*) with an array of late-season Sierran flora which aroused "the somewhat jaded spirits of the party" (Jepson 1913a, p. 193). After a luncheon along the Glacier Point roadside near Peregoy Meadow, there was a little time for the botanists, who had received special permission from the national park to make plant collections. Jepson was amused to watch the participants at their respective pursuits: Schröter and Engler were zealous collectors; Clements would pick up "scraps," ask Jepson or Hall to identify the plants, then throw the scraps away. Administrator Cowles "does not collect at all" (Jepson 1931c, p. 193).

Reaching Glacier Point in mid-afternoon, select stalwarts scaled the nearby granite summit of Sentinel Dome with its interesting xerophytic plants, Engler climbing "nearly to the top but not

quite." Choicest discovery was "the rat-tail, *Stellariopsis*" (now *Ivesia santolinoides*, its slender, silvery, densely haired leaves worthy of today's common name, mousetail *Ivesia*). Schröter declared ecstatically: "that species alone was worth the trip" (Jepson 1913-1914, p. 5).

On September 11, after over-nighting at the Glacier Point Hotel, many of the party commenced the twelve-mile hike from Glacier Point down the Illilouette Trail past Illilouette Falls, Nevada Falls, Vernal Falls, and finally onto the valley floor and east towards Camp Curry. Robust Dr. Engler was exhausted by the long trekking at high altitude, but none the less he refused to ride the horse awaiting him below Vernal Falls, and trudged on to Camp Curry. There awaiting him, of all things, was his valuable pocket watch, accidentally left behind at the Glacier Point Hotel but delivered by courier down the literally vertical Four-Mile-Trail from Glacier Point. Incidentally, during the scenic descent along the Illilouette Trail into the incomparable Yosemite Valley, Jepson observed the Europeans' "wonder grew and grew" (Jepson 1913-1914, p. 5).

Originally the schedule called for spending the night at Camp Curry, the main valley hostelry. Indeed, David Curry had planned for the eminent group "the biggest fire-fall (smoldering California red fir embers dumped over the cliff from Glacier Point) and the biggest camp fire", and around the flickering light of the fire a symposium on the formation of Yosemite Valley (Jepson 1913b, no. 395). But alas, there was only time at Camp Curry for a late lunch, then by stage back to El Portal for the night, and onto the train next morning for "the long tedious hot dusty" trip to Berkeley.

The exhausted excursion members were returned to Berkeley's Hotel Shattuck on Friday at 4:30 p.m.; but the day was by no means over as they were scheduled for the first banquet of the newly formed California Botanical Society in downtown Oakland that evening! Somehow hastily groomed, the excursionists filed into a private dining room at Hotel Oakland promptly at 7 p.m. on the 12th of September 1913 (Jepson 1916, pp. 14-18).

At the banquet Professor Jepson, first president of the new society, greeted the assemblage of more than a hundred, noting that the Phyto-jogs had just returned from Yosemite, "laden with botanical spoils, and covered impartially with the dust of the San Joaquin." Even Jepson himself had managed to garner 46 specimens. He went on to emphasize that this group of international natural scientists represented a new school, the plant ecologists, "who are leading us back to the field and woods ... making important use of the observations of the old-time naturalists." Dr. Setchell from Berkeley then welcomed the visitors

on behalf of the University of California, wishing them "the greatest success in their further studies in this state." At this point President Jepson introduced Dr. C. Hart Merriam, eminent for his distributional work with both plants and animals, resulting in the life zone concept. Merriam noted the "special interest that California has for the naturalist from the great diversity of its soil and climate conditions." His brief comments were followed by Jepson's presentation of Dr. David Barrows, acting president of the University of California, who early in his professional career had researched the ethno-botany of California's Cahuilla Indians.

Jepson then turned to Professor Tubeuf of the University of Munich. Dr. Tubeuf, apologizing for speaking in German, expressed thanks for the princely hospitality of the gentlemen, and especially, the ladies present; the latter "fair as your skies, rosy as your wine". Indeed they were the only group of American women the Excursion had socialized with in the New World. Dr. Tubeuf reflected that as a lad he had read "of your high mountains, wonderful trees, and fields of glorious bloom." And it "was the dream of my youth to see this paradise." For Tubeuf the high point of the California visit so far had been the Mariposa Grove. Standing among the immense conifers, he thought he fleetingly glimpsed a butterfly. "It alighted; and behold it was no butterfly but a bird, a hummingbird. How most remarkable, at the same moment to see the smallest of birds and the greatest of trees." In closing, Tubeuf praised "the freedom, the abandon, the largeness, the youth of your Western life." And he expressed the hope that the new "California Botanical Society will live to the age and dignity of your mighty Sequoias."

At last Jepson had "the especial honor of presenting Dr. Engler, Director of Berlin's Royal Botanical Gardens, who, apologizing for his limited English, made a well received presentation, after which the entire audience rose and drank a toast to the eminent scientist." Finally, the crowd moved to the hotel ballroom where Switzerland's Dr. Schröter presented a lecture on the flora of the Alps, illustrated with beautiful lantern slides, a talk delivered in English "which was excellent for a man who had just given only a few months to the language" (Jepson 1913a, p. 198). Incidentally, the original anticipation was to have Dr. Schröter's lecture paid for by the University of California or by Stanford, but it turned out that neither institution, as Stanford's Professor Pierce observed, would be "exactly lavish in its official recognition of the German Imperial Botanist or any of the others." World War I, of course, commenced the next year (Jepson 1913b, no. 627).

At evening's end Professor Schröter expressed to Jepson that "it was the finest dinner and

grandest occasion the party had experienced since landing in America" (California Botanical Society Collection 1913, letter, Jepson to Mrs. D. Van de Veer, Sept. 15, 1913). Overall, Jepson concluded that "the dinner was excellent, the speeches were satisfactory and our guests seemed thoroughly to enjoy themselves" (Jepson 1913a, p. 196). But undoubtedly the salient memory of this banquet which would linger most indelibly for many was the sudden appearance of botanist Sarah Lemmon at the podium (Jepson 1913b, no. 622). As Jepson stood up to introduce President Barrows, she materialized from the audience (though she had not been invited), "interrupted the programme, seized the floor and sailed grandly on", narrating the manifold but unappreciated past achievements of forester-husband John Lemmon (who had died in 1908), as well as those of Sarah herself, who had by 1903 successfully championed the California poppy (*Eschscholzia californica*) as the state flower. Jepson later wrote southern California botanist Samuel Parish that "Thus are programmes smashed in the interests of free speech ... I am sure you will be heartily pleased to know that Mrs. Lemmon's brilliance and safeguards against interruption when talking have not been diminished by years or the ravages of time" (Jepson 1913b, No 622).

Next morning, Saturday, the Phyto-jogs were dispersing in various directions around San Francisco, some to the University of California campus, to Stanford University, to salt marshes along the bay near Redwood City, and to nearby artificial brine ponds to view "organisms living under fatal conditions" (Jepson 1913b, no. 627), still others to see more redwoods and chaparral. Professor Jepson took Schröter and Stomps up to Santa Rosa to visit Luther Burbank, with whom Jepson had made an appointment (Jepson 1913a, pp. 198–201). After Burbank warned them that he restricted his tours to five minutes, Burbank ushered the botanists into his garden, pointing out exotics he had procured from various places. These were of little interest to the special visitors, who preferred to see some of Burbank's experimental plants. Schröter and Stomps were particularly impressed by the unique prickless blackberries (Santa Rosa and Sebastopol *Rubus*) that Burbank demonstrated by leaning over and rubbing his cheek along the branches. When Burbank noticed a crowd of tourists peeking into the garden at the little group of savants, he half-snarled to Jepson "See there, I can't come out here but people begin to gather. There was a regular riot one day and I had to send for the police!"

Sunday's excursion for the Phyto-jogs was to Mount Tamalpais and Muir Woods (Fig. 2), with Jepson turning the guiding over to Alice Eastwood of the California Academy of Sciences (Jepson 1913b, no. 444–445). It was a well organized day. Coming across by ferry from the



FIG. 2. Group Photograph at Mt. Tamalpais, California. Alice Eastwood is seated on Dr. Engler's left, with her boots perched on a wood footrest.

East Bay to Sausalito, the people ate breakfast on the boat. Met by Alice Eastwood, the party entrained for Mill Valley and was ready for the 8:15 Mt. Tamalpais and Muir Woods Train. As time permitted, there would be hikes which featured the flora of the Redwood forest and the coastal mountain chaparral. On the Rock Spring Trail the plant ecologists could see the peculiar vegetation which grows on serpentine outcrops, and from the scenic train the early July fireburn was visible, with "vigorous" new growth. Alice had obtained free passes on the electric railway (but forgot to get one for herself), and she had prevailed on her Botany Club to underwrite a free luncheon at West Point Inn, the terminus of the train line near the mountaintop. Most impressively, Alice managed to secure complimentary beer for the European visitors during the heat of the September afternoon. The day on "The Mountain," as she put it, indubitably proved to be the "only free entertainment of the Excursion!" (Wilson 1955, pp. 132–133).

Some forty years later, Miss Eastwood would have appreciative reason to recollect Dr. Skottsberg of Sweden with whom she became acquainted on the Mt. Tamalpais junket. It was upon his recommendation that she was invited to be honorary president of the Seventh International Botanical Congress in Uppsala (Wilson 1955, p. 132; Bonta 1992, p. 102). At Tamalpais, however, Eastwood had devoted much of her attention to Dr. Engler, taking him along a

special trail where she pointed out the different species of manzanita (*Arctostaphylos*) and two silk-tassels (*Garrya elliptica* and *G. fremontii*), new to him (Wilson 1955, pp. 132–133). Engler, as a botanical garden man himself, told Eastwood that the San Francisco Bay region would be a wonderful site for a botanical garden, and she confided her hopes that one would eventually be developed in San Francisco's Golden Gate Park. Of course, the Conservatory of Flowers had been initiated there about twenty-five years earlier; and in 1940 the Strybing Arboretum and Botanical Gardens would be officially opened.

From San Francisco, with Jepson and Eastwood now freed of hosting responsibilities, most members of the International Phytogeographical Excursion on September 15 traveled south by train to Carmel and the Carnegie Institution's Coastal Laboratory. Here they spent two days under the guidance of Daniel T. MacDougal, director of the Carnegie Desert Laboratory founded at Tucson, Arizona, late in 1902. Aiding MacDougal as "his willing lieutenants" were W. A. Cannon, his former New York Botanical Garden colleague, now Resident Investigator at the Desert Laboratory, Godfrey Sykes, the laboratory's manager, and Forrest Shreve, on his way to becoming one of the Southwest deserts' foremost plant ecologists and in 1915 a founder of the Ecological Society of America.

It wasn't just torrid desert heat in Arizona which had encouraged the Carnegie Institution to

set up summer headquarters for the Desert Laboratory at Carmel (Howard 1945, pp. 433–446; McGinnies 1981, pp. 10–14). Becoming interested in Burbank's plant breeding experiments, the Institution in 1905 initiated a five-year, \$50,000 grant to assist Burbank's work, and sent out botanist Dr. George Shull to cooperate with Burbank in his research at Santa Rosa. By 1907, with Burbank and Shull at an impossible scientific and personality impasse, Cannon from Tucson replaced Shull. During that summer Cannon became familiar with officers of the Carmel Development Company on the Monterey Peninsula, resulting in an enthusiastic offer from the company to build an adjunct laboratory for the Carnegie Institution at Carmel-by-the-Sea near the cool California seashore. Two years later, by which time Burbank had become persona non grata as far as Carnegie scientists were concerned, the laboratory became the summer headquarters for the Desert Laboratory. By 1913 when the Phytogeographical party visited, the so-called Coastal Laboratory was an integral part of the Carnegie's Department of Botanical Research.

Here on the Monterey Peninsula, the "center of one of the most remarkable communities of endemic plants in existence," (Nichols 1919, p. 63) the Phyto-jogs hastily reveled in the natural bounty, from Monterey pine (*Pinus radiata*), Monterey cypress (*Cupressus macrocarpa*), and oak woodlands to chaparral and sand dune, ably tutored by Stanford's Abrams and Cooper. Meanwhile, Berkeley's Setchell focused on the peninsula's panoply of coastal seaweeds. During the Phyto-jogs brief stay, MacDougal and his colleagues, with a generous special grant from the Carnegie Institution, lavished "to the needs, both physical and intellectual, of the visitors." As ecologist Tansley later reflected, "this portion of the tour formed a most brilliant close to a brilliantly successful excursion" (Tansley 1914, p. 325).

On Wednesday morning, September 17, the remaining excursionists boarded the Southern Pacific train for Los Angeles (Tansley 1914, pp. 326–333). How appropriate for the Europeans and Easterners aboard this "Wild West" train that near San Luis Obispo there should be an exciting "hold-up". A fire in a railroad tunnel forced the train passengers off the train. With luggage in hand they had to hike for a mile over a mountain path through smoldering chaparral, the night illuminated only by railroad men's lamps and torches. A rescue train beyond the tunnel took the party on to an unscheduled stop at Santa Barbara, with a morning visit to subtropical gardens and the old Spanish mission. Then there was dinner in Los Angeles and all aboard the night-train east to the desert.

The last day in California was spent with a morning tour from Mecca to the Salton Sea

(below sea level), formed by accidental diversion of the Colorado River into a playa basin, but since 1907 slowly evaporating. Here the Phyto-jogs took note of the changing plant distribution along the advancing shoreline. By the next year MacDougal would publish his own Salton Sea succession observations in *The New Phytologist*. During the afternoon a stop was made at a flourishing date palm plantation near Mecca, where it was noted that the temperature that day only reached 115 degrees in the shade. During the evening of September 19, the Southern Pacific train carried the international party over the Colorado River about eight miles north of Mexico and out of the Golden State into the newly formed State of Arizona.

The botanists awoke to a Sonoran Desert vista of Giant saguaro (*Cereus giganteus*) cacti as they sped by train for Tucson and the Desert Laboratory for a several-day stay. There they spent a day touring the laboratory's site on Tumamoc Hill, had another group photograph, and the next day explored by motor the botanical diversity of the Santa Catalina Mountains, backdrop of Tucson. Then they divided into two parties, one of which visited the Grand Canyon while the other made a circuit up the north slope of Mt. Lemmon, named in honor of botanist Sarah Lemmon, who in 1881 was the first white woman to reach its summit. Yes—none other than the unexpected disrupter of the grand California Botanical Society banquet!

The West Coast excursion of the Phyto-jogs had essentially reached its conclusion. The general response of the European scientists to the California exposure was well summed up by Professor Tubeuf, writing Professor Jepson from Munich, Germany, on November 23, 1913 (Jepson 1913b, no. 710): "I shall never forget the beautiful days in California and am now working with the greatest pleasure on my notations, photographs and collections..." The retrospective observation from the Excursion by Dr. Brockmann-Jerosch took a slightly different twist: "Ach, Gott, dies ist kein Urwald. Sehen Sie nur die Stumpfen!" ("Oh, God, this is no virgin forest. You see only the stumps!") (Sears 1969, p. 131).

Inevitably it would be phytogeographer Alfred Tansley who put into print in *The New Phytologist* the revelation of the Phyto-jogs' exhaustive excursion across the varied ecosystems of the United States, and the numerous phytogeographers enroute who were already busy studying the diversified ecological bounty: "...the most vivid impression I personally obtained was of the earnestness and single-mindedness of American science. In that vast field of ecology America has secured a commanding position and from the energy and spirit with which the subject is being pursued by very numerous workers and in its most varied aspects, there can be little doubt that

her present pre-eminence in this branch of biology—one of the most promising of all modern developments—will be maintained” (Tansley 1914, p. 333).

None of these distinguished foreign scientists would ever return to California and become residents. But Professor Adolf Engler's Reprint Collection, 183 linear feet including some 25,000 items, purchased from Engler's widow by Herman Knoche and presented to the Dudley Herbarium in 1945, now resides at the California Academy of Sciences (Daniel personal communication).

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