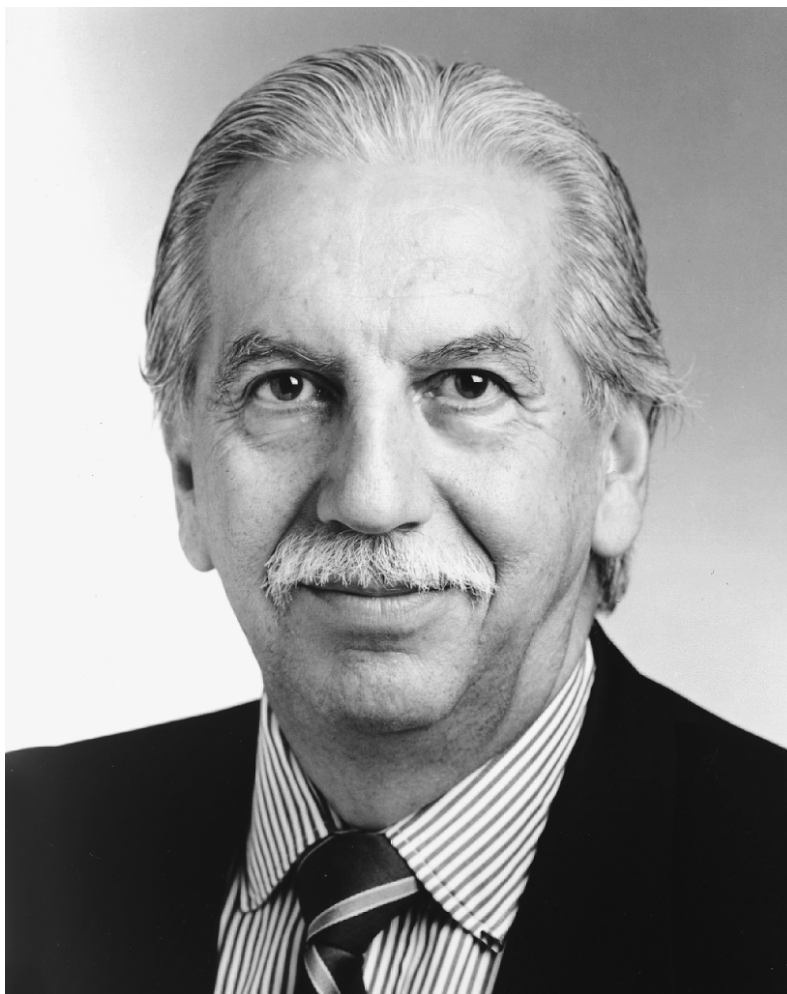


Arturo Gómez-Pompa
(1934-2025)



**Arturo Gómez-Pompa in 1994, upon receiving the Tyler Prize
(photo: Tyler Environmental Prize).**

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Arturo Gómez-Pompa, botanist and one of Mexico's most distinguished scientists, passed away on Tuesday, September 17, 2025, at the age of ninety. He is survived by his wife, Norma, his three sons —Arturo Eugenio, Eduardo and Gerardo—, his extended family, his grandchildren, and the extraordinary intellectual legacy he leaves behind for Mexico and the world.

One of the oldest traditions in Mexican botany has been the ability to study and understand plants within the context of their human environment. The *Códice de la Cruz-Badiano*, drawn and written by two Mexican *tlacuilo*s shortly after the arrival of the Spanish to Tenochtitlán; the *Historia de las Plantas de la Nueva España*, written by Francisco Hernández at the end of the sixteenth century; the *Noticias de Nutka*, written by Mariano Mociño in the seventeenth century; and the numerous texts of Antonio de Alzate, Mociño's contemporary, all reveal a deep interest in and respect for the traditional uses of plants and for indigenous knowledge of the natural world.

That ancient and venerable botanical —anthropological— tradition, that conviction that our understanding of the natural world is the legacy of generations of peasants, farmers, gatherers, and herbalists who have preceded us, accumulating a profound wisdom about the nature that surrounds us, is perhaps the most distinctive hallmark of Mexico's great naturalists. One of the most remarkable heirs to that tradition was Arturo Gómez-Pompa. It is impossible to understand the explosive development of botany, ecology, and ethnobiology in Mexico during the second half of the twentieth century and the early decades of the twenty-first without appreciating the extraordinary work of Dr. Gómez-Pompa.

From the very beginning of his professional career, Arturo Gómez-Pompa was enriched by the contributions of great Mexican scientists. The luminous figure of Faustino Miranda —Arturo's mentor during his early years at the Facultad de Ciencias, Universidad Nacional Autónoma de México (UNAM)— appears from the outset of his professional life in all his immense intellectual stature, once again underscoring the enormous legacy of the Spanish exile to Mexican science. Gradually, Arturo added to

his professional formation the influence of other leading Mexican scientists, such as Francisco Giral, Miguel Álvarez del Toro, Enrique Beltrán, and Efraím Hernández-Xolocotzi, among many others. In his autobiography, Arturo himself recounts with great humility his initial lack of knowledge of Mexico's floristic richness and, with a good sense of humor, tells how, as a recent graduate, he undertook studies for which, by his own admission, he was entirely unprepared (Fig. 1). In reality, Arturo was trained in the way that all great researchers are formed: through youthful audacity at first, followed by a profound affection and respect for his mentors, and an authentic passion for learning and unraveling the enigmas of the natural world.

During the first decade of Arturo Gómez-Pompa's academic life, the reductionism of basic science went hand in hand with the great political events of the twentieth century. As a young scientist in the National Commission for the Study of Dioscoreas, Arturo was constantly shifting his focus —from his attempts to understand and describe the minute flowers of the *barbasco* (*Dioscorea* spp.), to the social upheaval in Mexican universities during the protests of 1968; from the *chapines* used by *chinamperos* to germinate seeds, to an extraordinary journey to China in 1973, at the very moment of the thaw in diplomatic relations between East and West, when he helped to open new cultural bridges for Mexico. Only great scientists are capable of perceiving the natural world at such different scales and of realizing, as John Steinbeck once wrote, that either all these things make sense simultaneously or nothing truly does.

The academic life of Arturo Gómez-Pompa —one of the most fascinating trajectories in the history of Mexican science— was at the center of a network that connected him with students such as José Sarukhán, Javier Chavelas, and Miguel Ángel Martínez Alfaro, and with colleagues like Gonzalo Halffter, Gastón Guzmán, Jerzy Rzedowski, and especially Alfredo Barrera, his dear friend toward whom he always expressed profound and affectionate regard. Beyond his singular and productive scientific work and his extraordinary ability to weave friendships and alliances, Arturo was an exceptional creator of major institutions. The Estación de Biología Tropical Los Tuxtlas (Biological Station of Los Tuxtlas), the Reserva de la Biosfera Montes Azules



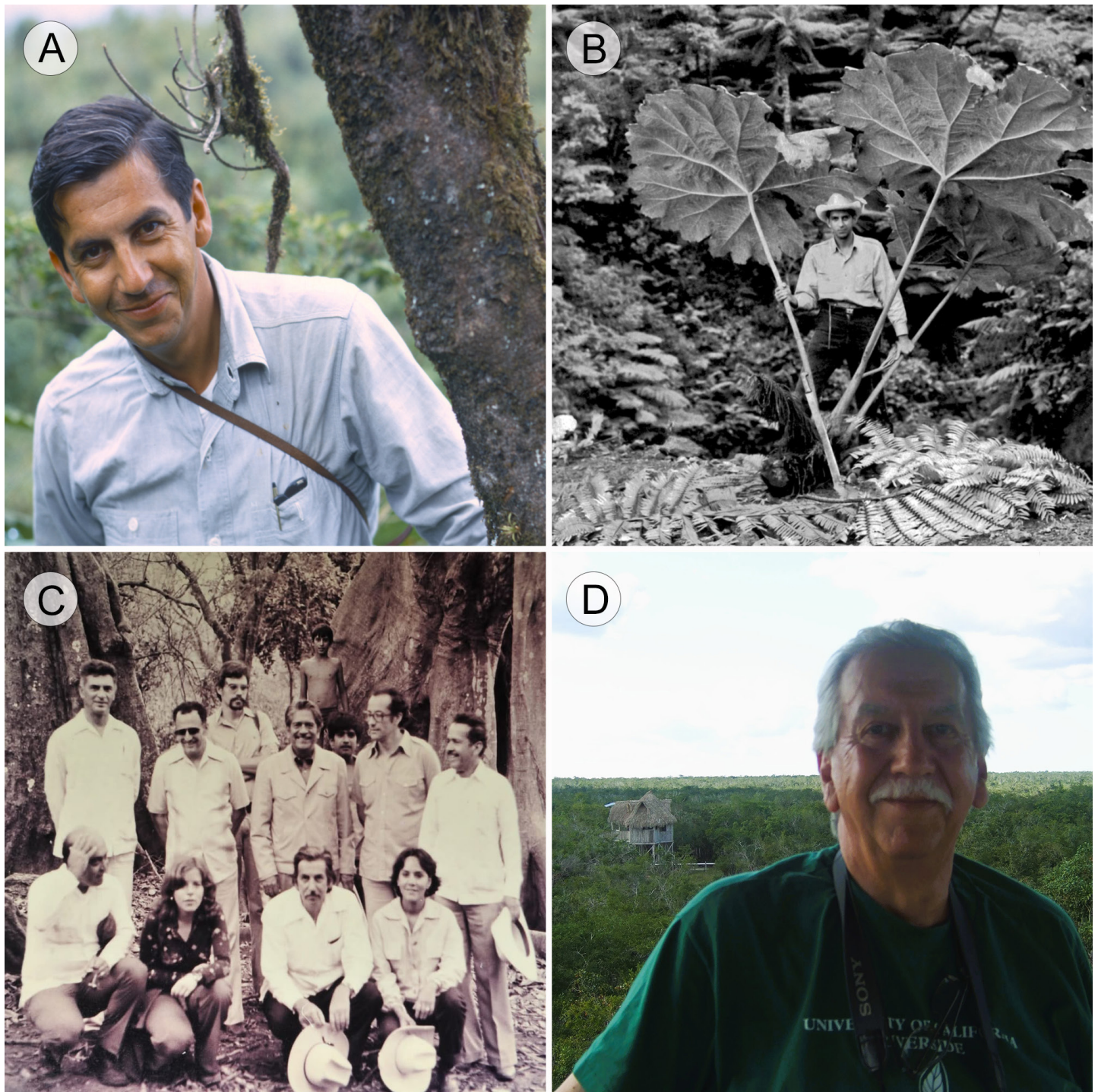


Figure 1: A. recently graduated (ca. 1957), exploring the rainforest in Tabasco, Mexico, for the collection of *Dioscoreas* (photo: CITRO (Centro de Investigaciones Tropicales, Universidad Veracruzana)); B. collecting *Gunnera mexicana* in the cloud forest of Veracruz, Mexico (ca. 1960; photo: CITRO (Centro de Investigaciones Tropicales), Universidad Veracruzana); C. with colleagues in the cloud forest of Xalapa, Veracruz, Mexico, during the foundation of INIREB (Instituto Nacional de Investigaciones sobre Recursos Bióticos) (1976; photo: Arturo E. Gómez-Barrero); D. at a canopy observation tower in the rainforest canopy, in El Edén, Quintana Roo, Mexico (2008; photo: Arturo E. Gómez-Barrero).

(Biosphere Reserve of the Montes Azules Rainforest), the Reserva Biológica El Edén (Tropical Reserve of El Edén), the Instituto Nacional de Investigaciones sobre Recursos Bióticos (INIREB, National Institute for Research on Biotic Resources), the University of California Institute for Mexico and the United States (UC MEXUS), and The George E. Brown United States/Mexico Foundation For Science (USMFS). All arose from his tireless organizational energy.

Arturo also lived through some of the most difficult and painful moments in the history of environmental science in Mexico, which he always faced without bitterness, responding instead with constructive and pragmatic solutions. One of the most harrowing conflicts emerged when the Mexican federal government launched a project to colonize the Uxpanapa River basin, an area at the time still entirely covered by tall, pristine rainforest. The program included massive deforestation using heavy machinery to benefit logging companies, followed by the resettlement of Mazatec and Chinantec peasants whose lands were about to be flooded by the construction of the “Cerro de Oro” dam in Oaxaca. Courageous and resolute, Arturo organized a protest by Mexican academics against the project. The debate reached the office of President Luis Echeverría, who—contrary to Gómez-Pompa’s recommendation—decided to proceed with the plan.

Many ecologists have heard of the Uxpanapa Project as one of the great environmental tragedies of the tropics, but Arturo Gómez-Pompa transformed that painful defeat into a moral victory. In his memoirs, he wrote:

“To this day, the Uxpanapa region remains an unresolved problem. Poverty persists; the once-majestic rainforests have practically disappeared; the promised agricultural paradise never came to be. [...] The recommendations we made more than 35 years ago are still valid, not only for Uxpanapa but for the few remaining rainforest regions we still have in the Mexican tropics. Uxpanapa, without a doubt, marked the true beginning of what we would later call political ecology in Mexico.”

Through challenge after challenge, the life of Arturo Gómez-Pompa highlights the best of Mexican ethnobotany and ecology. His legacy teaches us how, through data, ideas, and science, a single person can aspire to make the world

a better place. When he began his career, the number of Mexican ethnobotanists and ecologists could be counted on the fingers of one hand. Today, both disciplines have thousands of graduates working in universities and research centers throughout the country—and many of them are direct intellectual descendants of Arturo Gómez-Pompa’s school of thought. But to move forward in these disciplines, it is not enough merely to fight; one must also have brilliant ideas and be innovative and pioneering. In 1955, only two years after the publication of the structure of DNA by James Watson and Francis Crick, Arturo Gómez-Pompa was completing his undergraduate thesis in molecular biology, studying ribonuclease activity during maize germination, a truly cutting-edge project that explored gene-expression mechanisms in plants nearly five decades before the dawn of modern genomics.

By the mid-1970s, the Instituto Nacional sobre Recursos Bióticos, newly founded by Arturo, had already established major research lines in electronic floras, remote sensing through satellite imagery, digital cartography, and mathematical modeling of ecosystem dynamics. Using primitive computers and scarce resources, the researchers at INIREB—under Gómez-Pompa’s leadership—were working three decades ahead of their time, anticipating the development of modern electronic databases used today to understand natural resources and global environmental change.

When Arturo Gómez-Pompa was promoting, together with Gonzalo Halffter, the creation of the first Biosphere Reserves in Mexico, while simultaneously leading international efforts within UNESCO’s Man and the Biosphere (MAB) Program to protect the global environment, he was already speaking of conservation programs with indigenous and peasant communities, of focusing biotic resource management at the biome scale, and of developing an international ecological conservation program to safeguard the web of life at the planetary level.

In 1972, he published—along with his two students Sergio Guevara and Carlos Vázquez-Yanes—an article in *Science* on the nonrenewable nature of tropical rainforests, warning the world that their destruction could endanger the planet (“The Tropical Rain Forest: A Nonrenewable



Resource.” *Science* 177: 762-765). Two decades before the Rio Earth Summit, the central ideas of that revolutionary international agreement were already part of Arturo Gómez-Pompa’s everyday research and advocacy.

Ever faithful to his convictions, in the early 1980s he fought for the creation of a Ministry of the Environment in Mexico to address the country’s growing environmental problems from within the federal government. In December 1982, he had a public disagreement with President Miguel de la Madrid, who had decided to subordinate environmental governance to urban development by creating the SEDUE (Secretaría de Desarrollo Urbano y Ecología/Ministry of Urban Development and Ecology). The conflict forced Gómez-Pompa into a kind of self-imposed exile in 1983. Invited by the Rockefeller Foundation, he spent a year in Bellagio, Italy, before moving to UNESCO in Paris to take over the position vacated by Francesco di Castri in the Man and the Biosphere (MAB) Program. At UNESCO, Arturo first envisioned the possibility of using electronic databases and the then-emerging Internet to create an international biological information system for the MAB community — one that would compile biodiversity inventories from biosphere reserves around the world, supported by major herbaria and natural history museums. This pioneering idea took nearly two decades to mature within the international community, but it ultimately materialized as the Global Biodiversity Information Facility (GBIF)— a direct outgrowth of Gómez-Pompa’s visionary thinking.

His desire to remain close to Mexico and to continue conducting research there led Arturo Gómez-Pompa to accept, in late 1985, an invitation from the President of the University of California to become Professor of Botany at the Riverside campus and Director of the University of California Institute for Mexico and the United States (UC MEXUS), which had just been established. His career at Riverside was meteoric. Within just a few years, he transformed UC MEXUS into a model program of academic exchange, one that quickly gained immense scholarly prestige. At the same time, his presence in Riverside attracted a constellation of brilliant students from both Mexico and the United States, who would go on to fill the scientific literature with groundbreaking studies in ethnobotany.

Among these were research projects on the use of *quelites* in *chinampas*, the origin, evolution, and domestication of cacao, the traditional use of wild avocado, the cultivated varieties of chicozapote, the domestication of chia and vanilla, and the ritual cultivation of the cacao-flower (*Quararibea funebris*) in Yucatecan cenotes. His ethnobotanical work led him to consolidate a hypothesis he had begun developing during his time at UNESCO. Aware that, prior to the massive demographic collapse following the European conquest of the New World, the tropical forests had been inhabited for millennia, he proposed a revolutionary idea: The very notion of “wilderness” —a pristine, untouched nature— is an ideological construction contradicted by reality. Ecology and conservation, Gómez-Pompa concluded, make no sense if we ignore the human populations that live within those ecosystems and their empirically grounded knowledge accumulated over centuries of work and coexistence with nature.

In 1992, he published, together with his student Andrea Kaus, an article titled “Taming the Wilderness Myth” (*BioScience* 42(4): 271-279), in which he developed these ideas in detail, concluding that “the fundamental challenge is not to conserve the wilderness, but to tame the myth with an understanding that humans are not apart from nature.” Iconoclastic and unorthodox at the time of its publication, this call for a new way of understanding the natural world has since become a foundational paradigm for twenty-first-century conservation.

Driven by his theories, his research, and his enduring passion for tropical forests, in 1993 Gómez-Pompa decided to purchase 900 hectares of forest in northern Quintana Roo to establish an ecological reserve. To do so, he mortgaged his house in Riverside to buy the first section of what he named Reserva Biológica El Edén. A few months later, in 1994, he was awarded the prestigious Tyler Prize for Environmental Achievement. Without hesitation, he directed the award funds toward purchasing additional land for *El Edén*, expanding it to a protected area of 3000 hectares. Today, *El Edén* is the most important private ecological reserve in Latin America, and —thanks to the leadership of Arturo Gómez-Pompa— one of the most scientifically studied protected areas in the region.



A pillar of Mexican ethnobotany, founder of political ecology, creator of outstanding institutions, and above all, an eminent scientist, Mexico and the world owe an immense debt to Arturo Gómez-Pompa. His life stands as a vivid and inspiring testimony to more than seven decades of science devoted to the conservation of tropical ecosystems and traditional knowledge. But it is also a story of friendship and affection, revealing how a small

group of scientists, united by passion and idealism, can genuinely transform the reality around them. As Arturo Gómez-Pompa taught us, the construction of hope for our planet begins with simple acts, such as learning to identify the tiny flowers of the Dioscoreas, while keeping one's gaze equally fixed on envisioning a viable and promising future for our rural communities and for the Earth as a whole.

