

Opsianдра gomez-pompaе, A New Species from Oaxaca, Mexico

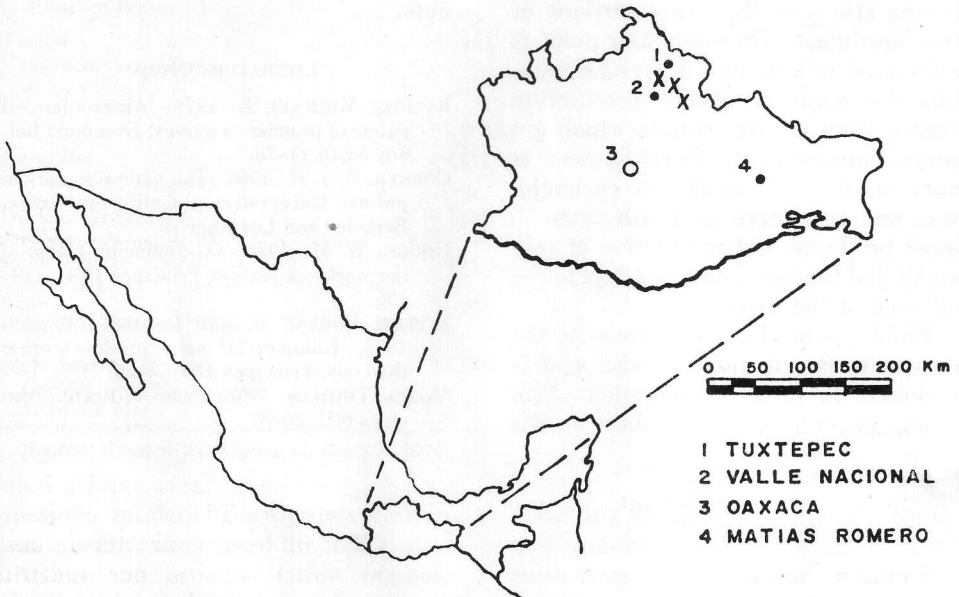
HERMILO J. QUERO

Jardín Botánico, Instituto de Biología, Universidad Nacional Autónoma de México, México 04510, D.F.

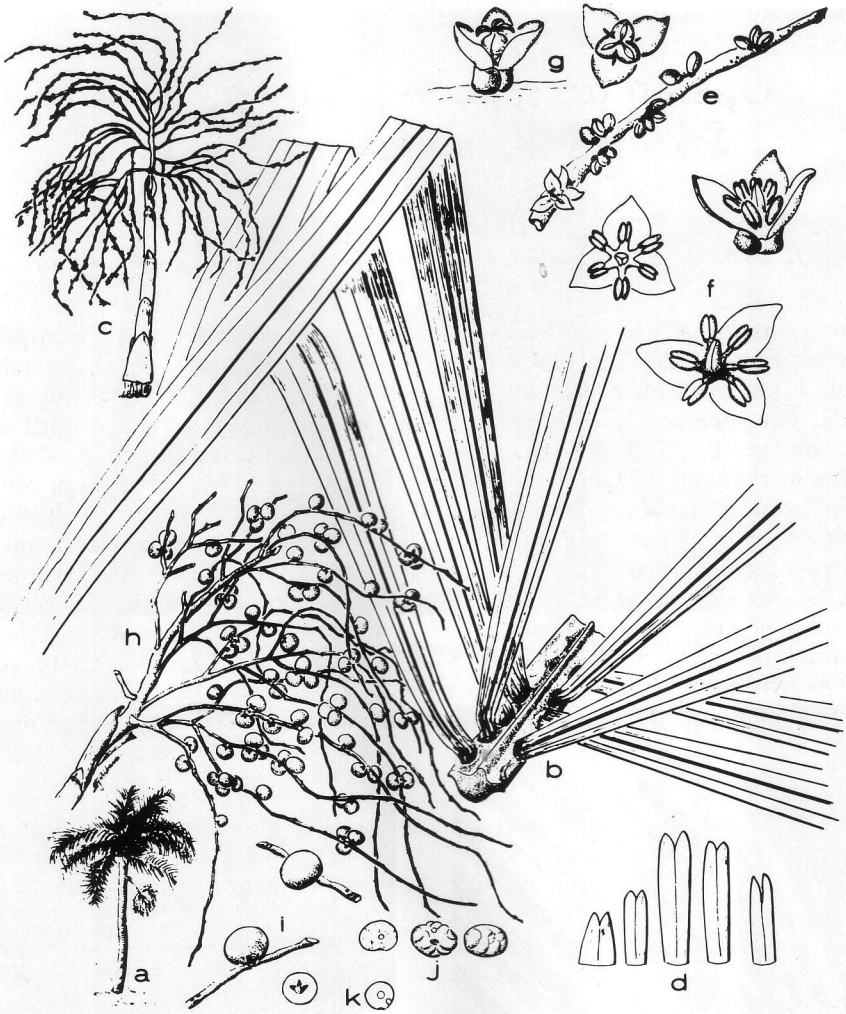
The genus *Opsianдра* was described by O. F. Cook (1923) and typified by *Opsianдра maya* from El Peten, Guatemala. The species was collected later in Belize. In 1978, I found this species in the state of Quintana Roo, in the Yucatan Peninsula, Mexico.

Since its publication the genus has been considered to be monotypic. In 1960, Gómez-Pompa found a palm in the region of Tuxtepec, Oaxaca, Mexico, which he reported (Gómez-Pompa 1963) as *Opsianдра maya*, stating that the specimens from the population dif-

fer somewhat from the description in the Flora of Guatemala and concluding that the differences were due to environmental factors. Thus, until now it was thought that the range of *Opsianдра maya* extended to Tuxtepec, Oaxaca. However, when I collected this palm in the Tuxtepec region and compared it with the population from Yucatan, I concluded that there are remarkable differences sufficient to consider the palm from Tuxtepec as a new species. This palm is named in honor of Dr. Arturo Gómez-Pompa of



1. Map showing the distribution of *Opsianдра gomez-pompaе*.



2. *Opsiandra gomez-pompae*. a) general appearance of the palm; b) part of a leaf; c) inflorescence $\times 1/25$; d) bracts $\times 1/15$; e) rachilla $\times 1 1/2$; f) staminate flowers $\times 2 1/2$; g) pistillate flowers $\times 3$; h) fruiting branches $\times 1/6$; i) fruits $\times 1/3$; j) seeds $\times 1 2/5$; k) cross section of seed with sub-basal embryo $\times 1/3$.

the Instituto de Investigaciones sobre Recursos Bióticos (INIREB), who first collected it.

***Opsiandra gomez-pompae* Quero,
sp. nov.**

Palma monoica, mediocris, caudice inermi, annulato, erecto vel decumbenti; folia pinnatisecta usque ad 3 m

longa, 85–100 paribus pinnarum lanceolarum in 2 seriebus utrinsecus, basi incrassato marginibus recurvis, petiolis supra canaliculatis, rachidibus infra convexis supra carinatis; inflorescentiae usque ad 1 m longae in ordines 2 ramificantes, bracteis primariis 5, compressis, apice bipartitis triangularibus, prophylo bicarinato; flores 2–4 aggregati plerumque 3, in-



3. *Opsianandra gomez-pompae* growing in a high forest near Tuxtepec.



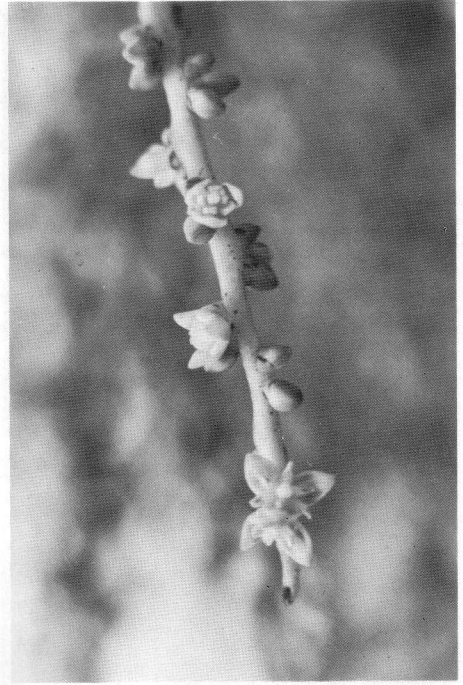
4. Leaf: note the two rows of segments, the swellings at their bases, and the prominent ribs.



5. Close-up of the inflorescence showing the last two peduncular bracts and the ramified primary branches.



6. Young inflorescences showing the bracts, the one on the left incompletely developed.

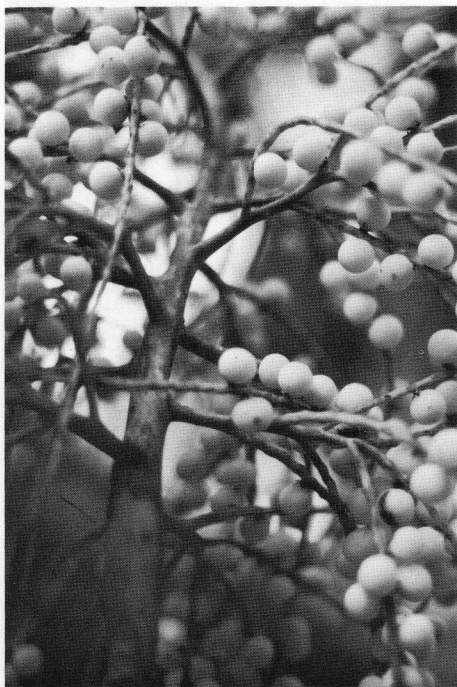


7. Close-up of rachilla with mature male flowers.

fima pistillati, staminati solitarii in apicibus ramorum; fructus globosi vel fere subglobosi, immaturi luteoli dein rubescentes, semina subglobosa, hilo basali, ramis raphis ascendentibus semen cingentibus, ramosis vel reticulatis, albumine homogeneo cavitate centrali, embryone laterali vel subbasali. Typus: Mexico, Oaxaca, *Quero* 3002 (holotypus MEXU; isotypi NY, UAM-I, US, XAL).

Solitary palm, mostly 10–14 m tall, sometimes taller; trunk columnar, with annular scars, erect or sometimes decumbent, to 30 cm in diameter toward the base, internodes very short at the base of the stem, ca. 3 cm long, increasing to 6–10 cm at the middle and becoming shorter above, supported by abundant, thick, adventitious roots. Leaves pinnate, mostly 10 in the crown, 2–3 m long; petiole grooved,

not distinct from the sheath, with involute edges, closing beyond the insertion of the first pinnae; rachis keeled above, rounded beneath; pinnae 85–100 pairs, arranged in four rows, two along each side of the rachis, the base of the pinnae forming swellings or calluses very near each other, proximal pinnae more or less in the same plane but directed to different points, 33–45 cm long, 1–1.5 cm wide, largest pinnae towards the middle of the leaf, 70–75 cm long and 4–4.6 cm wide, the apical ones about 20 cm long and 1 cm wide, with a very prominent, yellowish midrib, a prominent vein on each side of it and other veinlets between the veins. Inflorescences infrafoliar at maturity, rather robust, 90–100 cm long, with 30–40 primary branches, the most proximal twice ramified, 40–45 cm long; ra-



8. Inflorescence with globose immature fruits.

chillae slender, 20–30 cm long, the middle primary branches mostly forked, about 30 cm long, the apical single, 15–20 cm long; peduncular bracts including prophyll 5, each tubular, flattened, opening in a triangular apex; prophyll bicarinate, 8–13 cm long, 3.5–5 cm wide toward the base, the second bract slightly bicarinate, 16–18 cm long, 2.5–3 cm wide, third very slightly bicarinate, 21–25 cm long, 2–2.6 cm wide, the fourth not keeled, 21–24 cm long, 1.5–2.5 cm wide; the fifth not keeled, not flattened, papyraceous, 16–21 cm long, 1.8–2.5 cm wide. Flowers creamy-white, sessile, unisexual, mostly in groups of 3, but sometimes in groups of 2–4 or solitary, the basal flower usually pistillate, the solitary ones always staminate near the ends of the rachillae or between the groups, the staminate flowers slightly larger than

the pistillate but similar, with 3 imbricate sepals and 3 valvate petals; staminate flowers with orbicular sepals slightly wider than long, petals narrowly triangular, about 4.5 mm long and 2.2 mm wide; stamens with broad filaments almost as long as the anthers, anthers dorsifixed, about 1.2–1.4 mm long, thecae slightly unequal, retuse to slightly bifid at the apex, sagittate at the base; pistillodes pyramidal to columnar ca. 2 mm long; pistillate flowers with sepals similar to those of the staminate, petals narrow triangular, about 2.5 mm long and 1.4 mm wide, ovary trigonal about 2.5 mm long, stigma trifid, staminodes rudimentary, less than 0.5 mm long. Fruit globose to slightly subglobose, sessile, 1.4–1.6 cm diam., yellowish when immature, becoming reddish with maturity, with a basal stigmatic remnant, pericarp fleshy, less than 1 mm thick, epicarp smooth. Seed subglobose, 1.3–1.5 cm diam., slightly compressed toward the base near the embryo, raphe ramified to reticulate, the seed thus somewhat cerebriform; endosperm homogeneous, sometimes slightly intruded by the raphe branches, with a central cavity; embryo lateral to sub-basal.

Specimens Examined. MEXICO: Oaxaca: 26 km SE of Tuxtepec on road to Matias Romero, *Quero* 3002 (Holotype MEXU; Isotypes NY, UAM-I, US, XAL); between Chiltepec and Valle Nacional *Gomez-Pompa* 365 (MEXU); 23 km SE of Tuxtepec, *Grether* 1509 (MEXU, UAM-I); 20 km SE of Tuxtepec *Quero* 2949 (MEXU, UAM-I); 12 km S of Chiltepec *Quero* 3025 (UAM-I); 23 km SE of Tuxtepec *Quero* 3026 (MEXU), *Quero* 3027, (MEXU).

Distribution. So far this species has been found only in the vicinity of Tuxtepec towards the region of Valle Nacional and on the road to Matias Rom-

ero, growing on rugged limestone hills. It is an important element in the physiognomy of the high forest of that region.

Notes: This new species can be distinguished from *Opsiandra maya* by its habit, thicker trunk, longer leaves and segments, and larger inflorescences, but the most important differences between them are as follows:

	<i>Opsiandra maya</i>	<i>Opsiandra gomez-pompae</i>
No. of leaves	4-6	8-12
Inflorescence	Proximal primary branches simple or bifurcate	Proximal primary branches highly ramified
Peduncular bracts	4	5
Fruit	Subglobose-reniform with a median groove	Globose-subglobose without a median groove
Seed	Reniform, less than 1.2 cm in diameter	Subglobose, more than 1.2 cm in diameter
Pericarp	More than 1 mm thick	Less than 1 mm thick

LITERATURE CITED

- COOK, O. F. 1923. *Opsiandra*, a new genus of palms growing on Maya ruins in Peten, Guatemala. J. Wash. Acad. Sci. 13: 170-184.
- GOMEZ-POMPA. 1963. El genero *Opsiandra* en Mexico. Bol. Soc. Bot. Mexico 28: 23-27.

H. E. Moore, Jr.

The last letter I wrote to Hal was the first he never answered. As the silence lengthened I somehow knew that he was gone.

Hal's letters were always a joy to receive: even the shortest notes would bring me melting ice crystals from Ithaca or dancing moonlight from the Pacific. He could never bring himself to communicate in the brittle, business-like style which his profession demands. Like everything he did, Hal wrote with the love and care and purpose of a craftsman.

With infinite patience, Hal tried to make a craftsman out of me. But I was too young and hungry for instant answers. Hal's dream to preserve in a crystal some of Nature's enchanting complexity made little sense to me. Only much later, after seeing for myself the destruction throughout the tropics, did I realize that the world is tearing itself apart precisely because people lack love and care and purpose.

The crystal was never finished. But many of us whom he touched will not forget his dream.

ANTHONY ANDERSON