

ADDITIONAL MATERIALS TOWARD A MONOGRAPH OF THE GENUS CALLICARPA. I

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This is the thirtieth in my series of works of monographic nature on the genera of Verbenaceae, Avicenniaceae, Stilbaceae, Chloanthaceae, and Symphoremaceae. Previous genera so treated by me are Acantholippia Griseb., Aegiphila Jacq., Amasonia L. f., Avicennia L., Baillonia Bocq., Bouchea Cham., Casselia Nees & Mart., Castelia Cav., Chascanum E. Mey., Citharexylum B. Juss., Cornutia Plum., Diosstea Miers, Dipyrena Hook., Hierobotana Briq., Lippia Houst., Parodianthus Troncoso, Petitia Jacq., Petrea Houst., Priva Adans., Pseudocarpidium Millsp., Recordia Moldenke, Rehdera Moldenke, Rhaphithamnus Miers, Stylodon Raf., Svensonia Moldenke, Tectona L. f., Verbena [Dorst.] L., and Vitex Tourn. The New World and cultivated members of the genus Callicarpa were also treated by me in this fashion in Fedde, Repert. Spec. Nov. 39: 288—317 and 40: 38—131 (1936). In order to conserve space, material recorded in this previous work is not repeated here except where it needs addition or emendation.

The list of abbreviations employed by me in the citation of specimens, as given in *Phytologia* 5: 154—159 (1955) and added to in later monographs, is repeated herewith for convenience because of the numerous necessary additions and emendations over the past eleven years. My reasons for employing these short abbreviations, rather than the often very much longer ones recommended by the international committee, are stated in the 1955 work and in previous publications. As of this writing, I have examined and formally annotated 194,873 herbarium specimens from 284 institutional and private herbaria.

- A = Arnold Arboretum Herbarium, Harvard University, Cambridge, Massachusetts
- Aa = H. Ahles Herbarium, University of North Carolina, Chapel Hill, North Carolina
- Ac = Botanisk Institut, Aarhus Universitet, Aarhus, Denmark
- Ad = Universidad de los Andes, Mérida, Venezuela
- Af = National Herbarium, Pretoria, Transvaal, South Africa
- Ag = Carlos Muffos Herbarium, Ministerio de Agricultura, Santiago, Chile
- Ah = J. C. Arthur Herbarium, Purdue University, Lafayette, Indiana
- Ak = Alan Hancock Foundation, University of Southern California, Los Angeles, California
- Al = New York State Museum, Albany, New York
- Am = Southwest Research Station, American Museum of Natural History, Portal, Arizona
- An = Institut Français d'Afrique Noire, Dakar, Senegal
- Ar = United States National Arboretum, Washington, D. C.
- As = C. F. Asenjo Herbarium, University of Wisconsin, Madison, Wis-

consin

- Au = University of Texas, Austin, Texas  
 Av = Facultad de Agronomía y Veterinaria, Universidad de Buenos Aires, Buenos Aires, Argentina  
 B = Botanisches Museum und Garten, Berlin-Dahlem, Germany  
 Ba = Bailey Hortorium, Cornell University, Ithaca, New York  
 Bb = Barbados Museum and Historical Society, Bridgetown, Barbados  
 Bc = Barnard College Herbarium, New York Botanical Garden, New York City  
 Bd = Herbarium Bradeanum, Rio de Janeiro, Brazil  
 Be = Instituto Agronomico de Norte, Belém, Brazil  
 Bf = Instituto de Botánica y Farmacologia, Buenos Aires, Argentina  
 Bg = Bergens Museum, Bergen, Norway  
 Bh = Instituto Agronomico do Servico Publica de Estado, Belo Horizonte, Brazil  
 Bi = Bernice P. Bishop Museum, Honolulu, Hawaii  
 Bj = B. J. Bayer Herbarium, Jamaica, New York  
 Bk = Royal Forestry Department, Bangkok, Thailand  
 Bl = University of Colorado, Boulder, Colorado  
 Bm = British Museum of Natural History, London, England  
 Bn = Central College, Bangalore, Mysore, India  
 Bo = Instituto de la Salle, Bogotá, Colombia  
 Br = Jardin Botanique de l'Etat, Brussels, Belgium  
 Bs = Basler Botanische Gesellschaft, Basel, Switzerland  
 Bt = Butler University, Indianapolis, Indiana  
 Bu = W. M. Buswell Herbarium, University of Miami, Coral Gables, Florida  
 Bv = Bureau of Plant Industry Station, Beltsville, Maryland  
 By = Brooklyn College, Brooklyn, New York City  
 Bz = Herbarium Bogoriense, Buitenzorg, Java, Indonesia  
 C = Columbia University Herbarium, New York Botanical Garden, New York City  
 Ca = University of California, Berkeley, California  
 Cb = Delessert Herbarium, Conservatoire et Jardin Botaniques, Geneva, Switzerland  
 Cc = Colorado College, Colorado Springs, Colorado  
 Cd = Museo de Córdoba, Córdoba, Argentina  
 Ch = Carey Herbarium, Royal Botanic Gardens, Kew, England  
 Ci = Escuela Superior Agricultura Tropical, Cali, Colombia  
 Cl = Royal Botanic Gardens, Calcutta, India  
 Cm = Carnegie Museum, Pittsburgh, Pennsylvania  
 Cn = University of Cincinnati, Cincinnati, Ohio  
 Co = North Appalachian Experimental Watershed, Coshocton, Ohio  
 Cp = Universitetets Botaniske Museum, Copenhagen, Denmark  
 Cr = J. Carabia Herbarium, Sansalito, California  
 Cs = Department of Biology, Agricultural and Mechanical College of Texas, College Station, Texas  
 Ct = Bolus Herbarium, University of Capetown, Capetown, South Africa  
 Cu = Cambridge University, Cambridge, England  
 Cz = Canal Zone Biological Area, Barro Colorado Island, Canal Zone

- D = Academy of Natural Sciences, Philadelphia, Pennsylvania  
 Da = United States Department of Agriculture, Washington, D. C.  
 Dc = De Candolle Herbarium, Conservatoire et Jardin Botaniques, Geneva, Switzerland  
 Dd = Botanic Gardens, Dehra Dun, Uttar Pradesh, India  
 De = Delzie Demaree Herbarium, Monticello, Arkansas  
 Dg = Otto Degener Herbarium, Waialua, Hawaii  
 Di = Carthage College, Carthage, Illinois  
 Dm = C. C. Deam Herbarium, Bluffton, Indiana  
 Dp = De Pauw University, Greencastle, Indiana  
 Dr = Botanisches Institut, Dresden, Germany  
 Dt = Jesup Herbarium, Dartmouth College, Hanover, New Hampshire  
 Du = Dudley Herbarium, Stanford University, Stanford, California  
 Dv = Botany Department, College of Agriculture, Davis, California  
 E = Missouri Botanical Garden, Saint Louis, Missouri  
 Ea = Earlham College, Earlham, Indiana  
 Ec = Universidad Nacional de Loja, Loja, Ecuador  
 Ed = Royal Botanic Garden, Edinburgh, Scotland  
 El = José Eugenio Leite Herbarium, Novo Friburgo, Rio de Janeiro, Brazil  
 En = J. Ewan Herbarium, New Orleans, Louisiana  
 Er = Palynologiska Laboratoriet, Bromma, Sweden  
 Es = Estacion Experimental Agronomica, Santiago de las Vegas, Havana, Cuba  
 Ew = Erik Wall Herbarium, Stockholm, Sweden  
 F = Chicago Natural History Museum, Chicago, Illinois  
 Fc = Colorado Agricultural and Mechanical College, Fort Collins, Colorado  
 Fg = Arizona State College, Flagstaff, Arizona  
 Fj = Fred B. Jones Herbarium, Corpus Christi, Texas  
 Fl = University of Florida, Gainesville, Florida  
 Fn = Facultad Nacional de Agronomia, Universidad Nacional, Medellin, Colombia  
 Fo = Instituto Botanico della Universita, Florence, Italy  
 Fs = Forrest Shreve Herbarium, University of Arizona, Tucson, Arizona  
 Fx = Lauretta E. Fox Herbarium, Natchitoches, Louisiana  
 Fy = University of Arkansas, Fayetteville, Arkansas  
 G = Gray Herbarium, Harvard University, Cambridge, Massachusetts  
 Ga = Georgia Agricultural Experiment Station, Experiment, Georgia  
 Ge = H. S. Gentry Herbarium, Tucson, Arizona  
 Gg = California Academy of Sciences, San Francisco, California  
 Gl = Museu Goeldi, Belém, Pará, Brazil  
 Gm = Wallich Herbarium, Royal Botanic Gardens, Kew, England  
 Go = Botaniska Trädgård, Göteborg, Sweden  
 Gp = Ontario Agricultural College, Guelph, Ontario, Canada  
 Gt = Botanische Anstalten, Göttingen, Germany  
 Gu = University of Georgia, Athens, Georgia  
 H = Duke University, Durham, North Carolina  
 Ha = Colegio de la Salle, Vedado, Havana, Cuba  
 Hb = H. Bassler Herbarium, New York Botanical Garden, New York City

- He = W. G. Herter Herbarium, Montevideo, Uruguay  
 Hi = University of North Carolina, Chapel Hill, North Carolina  
 Hk = University of Helsinki, Helsinki, Finland  
 Hn = Herbario Nacional Colombiano, Instituto Ciencias Naturales, Bogotá, Colombia  
 Hp = H. Hapeman Herbarium, Minden, Nebraska  
 Hq = Instituto Botanico Dr. Julio Henriques, Coimbra, Portugal  
 Hr = H. Hürlimann Herbarium, CIBA, Basel, Switzerland  
 Hs = Crispus Attucks High School, Indianapolis, Indiana  
 Hu = Sam Houston State Teachers College, Huntsville, Texas  
 Hv = Academia de Ciencias, Havana, Cuba  
 Hw = Howard University, Washington, D. C.  
 I = Langlois Herbarium, Catholic University of America, Washington, D. C.  
 Ib = Instituto de Botanica e Agricola del I. N. T. A., Buenos Aires, Argentina  
 Id = University of Idaho, Southern Branch, Pocatello, Idaho  
 Ih = Instituto de Historia Natural, Curitiba, Paraná, Brazil  
 Ij = Science Museum, Institute of Jamaica, Kingston, Jamaica  
 Il = Illinois State Museum, Springfield, Illinois  
 In = Indiana University, Bloomington, Indiana  
 Io = Iowa State College, Ames, Iowa  
 Ip = Escuela Nacional de Ciencias Biologicas, Instituto Politecnico Nacional, Mexico City, Mexico  
 It = Cornell University, Ithaca, New York  
 J = Brooklyn Botanic Garden, Brooklyn, New York City  
 Ja = Museu Nacional, Rio de Janeiro, Guanabara, Brazil  
 Jc = J. Cuatrecasas Herbarium, Bensenville, Illinois  
 Je = William Jewell College, Liberty, Missouri  
 Jn = Aage Bohus-Jensen Herbarium, Lyngbye, Denmark  
 Jr = Hebrew University, Jerusalem, Israel  
 Jz = J. de J. Jiminéz Herbarium, Santiago de los Caballeros, Dominican Republic  
 K = Royal Botanic Gardens, Kew, England  
 Ka = Kansas State College, Manhattan, Kansas  
 Ke = Kern Herbarium, Pennsylvania State College, State College, Pennsylvania  
 Kg = Department of Agriculture, Kagoshima University, Kagoshima, Japan  
 Ki = E. P. Killip Herbarium, University of Rochester, Rochester, New York  
 Ko = Botanisches Institut, Universität Köln, Köln, Germany  
 Kr = B. A. Krukoff Herbarium, Smithtown, New York  
 Ku = Eberhard Kausel Herbarium, Santiago, Chile  
 Ky = University of Kentucky, Lexington, Kentucky  
 L = Jardin Botanique Principal, Leningrad, U. S. S. R.  
 La = University of California at L. A., Los Angeles, California  
 Lb = University of Missouri, Columbia, Missouri  
 Ld = C. L. Lundell Herbarium, Renner, Texas  
 Le = Rijksherbarium, Leiden, Netherlands  
 Lg = Fritz Lemperg Herbarium, Hatzendorf, Steiermark, Austria  
 Lh = Laboratory Herbarium, Department of Botany, Barnard College,

## New York City

- Ll = Colegio Salesiano, Lima, Peru  
 Ll = Lloyd Library, Cincinnati, Ohio  
 Lm = Los Angeles County Museum, Los Angeles, California  
 Lo = Gaulterio Looser Herbarium, Santiago, Chile  
 Ls = Linnean Herbarium, Linnean Society, London, England  
 Lu = Botanisk Museum, University of Lund, Lund, Sweden  
 Lw = University of Kansas, Lawrence, Kansas  
 Lz = A. Lutz Herbarium, Universidade do Brasil, Rio de Janeiro, Guanabara, Brazil  
 M = Meisner Herbarium, New York Botanical Garden, New York City  
 Ma = Forest Department of Malaya, Kepong, Selangor, Malaya  
 Mb = Melbourne Botanic Garden, Melbourne, Victoria, Australia  
 Mc = J. B. McFarlin Herbarium, Sebring, Florida  
 Md = University of Maryland, College Park, Maryland  
 Me = Instituto de Biologia, Universidad Nacional de México, Mexico City, Mexico  
 Mf = Maharan's College, Bangalore, India  
 Mg = Montreal Botanical Garden, Montreal, Quebec, Canada  
 Mh = Matuda Herbarium, Mexico City, Mexico  
 Mi = University of Michigan, Ann Arbor, Michigan  
 Mk = F. C. MacKeever Herbarium, Mount Vernon, New York  
 Ml = Instituto Miguel Lillo, Tucumán, Argentina  
 Mm = McGill University, Montreal, Quebec, Canada  
 Mn = University of Montana, Missoula, Montana  
 Mo = Morris Arboretum, Philadelphia, Pennsylvania  
 Mp = Museo Paranaense, Curitiba, Paraná, Brazil  
 Mr = Morehead State College, Morehead, Kentucky  
 Ms = University of Massachusetts, Amherst, Massachusetts  
 Mt = Mary Thais Herbarium, St. Mary's High School, Perth Amboy, New Jersey  
 Mu = Botanisches Museum, Munich, Germany  
 Mv = Marie-Victorin Herbarium, Montreal Botanical Garden, Montreal, Quebec, Canada  
 N = Britton Herbarium, New York Botanical Garden, New York City  
 Na = Natal Government Herbarium, Durban, Natal, South Africa  
 Nb = Stephen F. Austin State College, Nacogdoches, Texas  
 Nc = State Normal College, Natchitoches, Louisiana  
 Nd = Notre Dame University, Notre Dame, Indiana  
 Ng = Department of Forests, Lae, New Guinea  
 Nj = Douglas College, New Brunswick, New Jersey  
 Nm = Newark Museum, Newark, New Jersey  
 No = North Carolina State College, Raleigh, North Carolina  
 Nt = North Texas State Teachers College, Denton, Texas  
 O = University of Tennessee, Knoxville, Tennessee  
 Oa = Oakes Ames Economic Herbarium, Botanical Museum, Harvard University, Cambridge, Massachusetts  
 Ob = Oberlin College, Oberlin, Ohio  
 Og = Percy Olrog Herbarium, Stockholm, Sweden  
 Ok = University of Oklahoma, Norman, Oklahoma  
 Ol = Universitetets Botaniske Museum, Oslo, Norway  
 Om = Omer E. Sperry Herbarium, Alpine, Texas

- Or = Oregon State College, Corvallis, Oregon  
 Os = Osborn Botanical Laboratory, Yale University, New Haven, Connecticut  
 Ot = National Herbarium of Canada, Ottawa, Ontario, Canada  
 Ox = Oxford University, Oxford, England  
 P = Muséum National d'Histoire Naturelle, Paris, France  
 Pa = College of Pharmacy Herbarium, New York Botanical Garden, New York City  
 Pb = R. Probst Herbarium, Langendorf, Switzerland  
 Pc = Philip Cheitman Herbarium, New York City  
 Pe = Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Lima, Peru  
 Pf = Centro de Pesquisas Florestais e Conservação de Natureza, Tijuca, Rio de Janeiro, Brazil  
 Ph = Philippine Bureau of Science, Manila, Philippine Islands  
 Pi = Polytechnic Institute of Puerto Rico, San Germán, Puerto Rico  
 Pl = State College of Washington, Pullman, Washington  
 Pm = Pharma Herbarium, CIBA, Basel, Switzerland  
 Pn = Parque Nacional de Serra dos Orgãos, Terezopolis, Rio de Janeiro, Brazil  
 Po = Pomona College, Claremont, California  
 Pr = Princeton University Herbarium, New York Botanical Garden, New York City  
 Pu = Purdue University, Lafayette, Indiana  
 Q = Jardin Botanico, Madrid, Spain  
 Qi = W. C. Werner Herbarium, Painesville, Ohio  
 Qu = North Queensland Herbarium, North Queensland Naturalists Club, Cairns, Queensland, Australia  
 R = Trinidad & Tobago Botanical Garden, Port-of-Spain, Trinidad  
 Ra = Museo Nacional de Historia Natural, Buenos Aires, Argentina  
 Rb = Colegio Anchieta, Porto Alegre, Santa Catarina, Brazil  
 Rd = Herbario Barbosa Rodrigues, Itajai, Santa Catarina, Brazil  
 Re = R. E. Schultes Herbarium, Cambridge, Massachusetts  
 Rf = Texas Research Foundation, Renner, Texas  
 Rg = J. T. Roig Herbarium, Estacion Experimental Agronomica, Santiago de las Vegas, Havana, Cuba  
 Rh = Government Herbarium, Causeway, Salisbury, Rhodesia  
 Rl = Herbario Ruiz Leal, Godoy Cruz, Mendoza, Argentina  
 Ro = Santa Rosa Junior College, Santa Rosa, California  
 Rr = Robert Runyon Herbarium, Brownsville, Texas  
 Rs = Rancho Santa Ana Botanic Garden, Claremont, California  
 Ru = Rutgers University, New Brunswick, New Jersey  
 S = Naturhistoriska Riksmuseum, Stockholm, Sweden  
 Sa = Henry R. Carter Memorial Laboratory, Savannah, Georgia  
 Sc = Colegio Notra Señora de la Caridad, Santiago, Cuba  
 Sd = San Diego Society of Natural History, San Diego, California  
 Se = University of Washington, Seattle, Washington  
 Sf = Servico Florestal do Estado, São Paulo, Brazil  
 Sg = Museo Nacional de Historia Natural, Santiago, Chile  
 Sh = Blythe Sherwood Herbarium, Pawling, New York  
 Si = Instituto Darwinion, San Isidro, Argentina  
 Sj = University of Puerto Rico, San Juan, Puerto Rico

- Sk = University of Saskatchewan, Saskatoon, Saskatchewan, Canada  
Sm = Southern Methodist University, Dallas, Texas  
Sp = Jardim Botânico, São Paulo, Brazil  
Sq = E. R. Squibb and Sons, New York City  
Sr = Sul Ross Teachers College, Alpine, Texas  
Ss = Science Service, Department of Agriculture, Ottawa, Ontario, Canada  
St = Oklahoma State University, Stillwater, Oklahoma  
Sw = J. Otis Swift Herbarium, New York City  
Sz = A. G. Schulz Herbarium, Colonia Benítez, Chaco, Argentina  
T = Torrey Herbarium, New York Botanical Garden, New York City  
Tc = Torrey Botanical Club Herbarium, New York Botanical Garden, New York City  
Th = Thunberg Herbarium, Botaniska Institutionen, Uppsala, Sweden  
Tj = University of Santo Domingo, Santo Domingo, Dominican Republic  
Tl = Tulane University, New Orleans, Louisiana  
Tm = Transvaal Museum, Pretoria, Transvaal, South Africa  
To = United States Field Station, Sacaton, Arizona  
Tr = S. M. Tracy Herbarium, Texas Agricultural Experiment Station, College Station, Texas  
Tu = University of Arizona, Tucson, Arizona  
U = Jenman Herbarium, Botanic Garden, Georgetown, British Guiana  
Ua = Utah State Agricultural College, Logan, Utah  
Ug = Museo de Historia Natural, Montevideo, Uruguay  
Ul = Centro de Botanica, Junta de Investigações do Ultramar, Lisbon, Portugal  
Um = University of Montreal, Montreal, Quebec, Canada  
Up = University of Pennsylvania, Philadelphia, Pennsylvania  
Ur = University of Illinois, Urbana, Illinois  
Us = Botaniska Institutionen, Uppsala, Sweden  
Ut = Botanisch Museum en Herbarium, Utrecht, Netherlands  
V = Naturhistorisches Museum, Vienna, Austria  
Va = Vanderbilt University, Nashville, Tennessee  
Ve = Museo Comercial de Venezuela, Caracas, Venezuela  
Vi = Marie-Victorin Herbarium, University of Montreal, Montreal, Quebec, Canada  
Vl = Facultad de Agronomía del Valle, Valle del Cauca, Colombia  
Vt = University of Vermont, Burlington, Vermont  
Vu = Botanisches Institut der Universität, Vienna, Austria  
Vx = Växtbiologiska Institutionen, Uppsala Universitets, Uppsala, Sweden  
W = United States National Museum, Smithsonian Institution, Washington, D. C.  
Wb = Wilson Brown Herbarium, Jesuit Tertianship, Auriesville, New York  
We = West Virginia University, Morgantown, West Virginia  
Wh = Faculdade de Farmacia e Odontologia, Universidad de São Paulo, São Paulo, Brazil  
Wi = Witte Memorial Museum, San Antonio, Texas  
Wl = William Lucian Herbarium, Waterbury, Connecticut  
Wp = University of Manitoba, Winnipeg, Manitoba, Canada

- Ws = University of Wisconsin, Madison, Wisconsin  
 Ww = Rob and Bessie Welder Wildlife Foundation, Corpus Christi,  
 Texas  
 Wx = Max Gordon Herbarium, New York City  
 X = Herbarium Boissier, Conservatoire et Jardin Botaniques, Geneva,  
 Switzerland  
 Xa = Blatter Herbarium, Saint Xavier's College, Bombay, India  
 Y = Yale School of Forestry, New Haven, Connecticut  
 Yu = T. G. Yuncker Herbarium, Greencastle, Indiana  
 Z = H. N. Moldenke Herbarium, Plainfield, New Jersey

CALLICARPA L., Act. Soc. Reg. Sci. Ups. 80 (1741); Sp. Pl., ed. 1,  
 1: 111 (1753); Gen. Pl., ed. 5, 50. 1754.  
 Additional & emended synonymy: Tomex L., Nov. Pl. Gen. Diss.  
 Dassow 5. 1747. Illa Herm. ex L., Nov. Pl. Gen. Diss. Dassow 5.  
 1747. Spondylococcus Mitch., Act. Phys.-med. Acad. Caes. Leopold.-  
 Carol. Nat. Cur. 8 (app.): 218. 1748. Johnsonia T. Dale ex P.  
 Mill., Gard. Dict., ed. 6, app. 75 (1752), ed. 7. 1759. Sphondy-  
lococcus Mitch. apud L., Sp. Pl., ed. 1, 1: 111, in syn. 1753.  
Burcardia Heist. ex Duham., Trait. Arb. & Arbust. 1: 111-112, pl.  
 44. 1755. Spondylococcus Mitch. apud P. Mill., Gard. Dict., ed. 7,  
 in syn. 1759. Burchardia Duham. apud L., Sp. Pl., ed. 2, 1: 161,  
 in syn. 1762 [not Burchardia R. Br., 1810]. Johnsonia Mill. apud  
 L., Sp. Pl., ed. 2, 1: 161, in syn. 1762. Tomox L. apud Adans.,  
 Fam. Pl. 2: 446, in syn. 1763. Illa Adans., Fam. Pl. 2: 446.  
 1763. Spondylococcus Mitch. apud P. Mill., Gard. Dict., ed. 8, in  
 syn. 1768. Callicarpa P. Mill., Gard. Dict., ed. 8, in syn. 1768.  
Burchardia Heist. apud Reichard, Linn. Gen. Pl., ed. 8, 56, in  
 syn. 1778. Burcardia Duham. apud Lam., Encycl. Méth. Bot. 1: 563,  
 in syn. 1783. Porphyra Lour., Fl. Cochinch., ed. 1, 1: 69. 1790  
 [not Porphyra C. Agardh, 1822]. Spondylococcus Mitch. apud Reich-  
 enb. in Mössler, Handb. Gewächsk., ed. 1, 1: xxxvi. 1827. Amicto-  
nis Raf., Sylv. Tellur. 161. 1838. Sphondylococcum Mitch. apud  
 Endl., Gen. Pl. 637, in syn. 1838. Johnsonia Catesby apud Endl.,  
 Gen. Pl. 637, in syn. 1838. Callicarpus L. apud Hassk., Cat. Pl.  
 Hort. Bot. Bogor. 136. 1844. Sphondylococcus Mitch. apud Walp.,  
 Repert. 4: 127, in syn. 1845. Callicarpus Hassk. apud Miq., Fl.  
 Ind. Bat. 2: 884, in syn. 1857. Spondylococca Mitch. apud Benth.  
 in Benth. & Hook. f., Gen. Pl. 2 (2): 1150, in syn. 1876. Caly-  
carpa L. apud Featherman, Rep. Bot. Surv. South Cent. La. 99. 1891.  
Burchardia (Heist.) Duham. ex Jacks. in Hook. f. & Jacks., Ind.  
 Kew, 1: 386, in syn. 1893. Tomea L. apud Jacks. in Hook. f. &  
 Jacks., Ind. Kew. 1: 386, in syn. 1893. Callicarpa Rama Rao,  
 Flower. Pl. Travancore 314, sphalm. 1914. Burcardia (Heist.) Du-  
 ham. ex Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 9, in syn.  
 1921. Burcardia Mill. ex Moldenke in Fedde, Repert. Spec. Nov.

39: 291, in syn. 1936. Spondylococcum Mitch. ex Moldenke in Fedde, Repert. Spec. Nov. 39: 291, in syn. 1936. Callicarpa L. ex Moldenke in Fedde, Repert. Spec. Nov. 39: 291, in syn. 1936. Callicocarpa L. ex Moldenke in Fedde, Repert. Spec. Nov. 39: 291, in syn. 1936. Callicarpa L. ex Moldenke in Fedde, Repert. Spec. Nov. 39: 291, in syn. 1936. Callocarpa L. ex Moldenke in Fedde, Repert. Spec. Nov. 39: 291, in syn. 1936. Callycarpa L. ex Moldenke in Fedde, Repert. Spec. Nov. 39: 291, in syn. 1936. Catlicarpa Schau. apud Moldenke in Fedde, Repert. Spec. Nov. 42: 242, sphalm. 1937. Caliocarpa L. ex Moldenke, Prelim. Alph. List Invalid Names 9, in syn. 1940. Callicarpia L. ex Moldenke, Prelim. Alph. List Invalid Names 13, in syn. 1940. Porphyria Lour. ex Moldenke, Prelim. Alph. List Invalid Names 37, in syn. 1940. Spondylococca L. ex Moldenke, Prelim. Alph. List Invalid Names 40, in syn. 1940. Callicarpus L. ex Moldenke, Suppl. List Invalid Names 1, in syn. 1941. Calleocarpa L. ex Moldenke, Suppl. List Invalid Names 1, in syn. 1941.

Bibliography: Rheede & Munnicks, Hort. Ind. Malab. 4: pl. 60. 1683; Pluk., Phytograph. pl. 136, fig. 3. 1692; Ray, Hist. Pl. 2: 1787. 1693; Pluk., Almagest. Bot. 33, pl. 136, fig. 3. 1696; P. Herm., Mus. Zeyl., ed. 1, 11 (1717) and ed. 2, 11. 1726; Catesby, Nat. Hist. Carol., ed. 1, 2: 47, pl. 47. 1733; J. Burm., Thes. Zeyl. 26. 1737; L., Act. Soc. Reg. Sci. Ups. 80. 1741; J. F. Gronov., Fl. Virg. 138. 1743; Rumph., Herb. Amboin. 4: 114--118 & 123, pl. 58--60. 1743; Dassow in L., Nov. Pl. Gen. 5. 1747; L., Fl. Zeyl. 24. 1748; J. Mitch., Nov. Act. Phys.-med. Acad. Caes. Leopold.-Carol. Nat. Cur. 8 (app.): 218. 1748; L., Amoen. Acad. 1: 389. 1749; Rumph., Herb. Amboin. 4: 124, pl. 49. 1750; P. Mill., Gard. Dict., ed. 6, app. 75. 1752; L., Gen. Pl., ed. 4, 415--416. 1752; L., Sp. Pl., ed. 1, 1: 111 & 118. 1753; L., Gen. Pl., ed. 5, 50. 1754; Catesby, Nat. Hist. Carol., ed. 2 (rev. Edwards), 2: 47. 1754; P. Mill., Gard. Dict., abridg. ed. 4, 2. 1754; Duham., Trait. Arb. & Arbust. 1: 111--112\*, pl. 44. 1755; Kniphof, Bot. Orig. Herb. Viv. 1: pl. 196 & 4: pl. 51. 1758; Kwa-wi [transl. Savatier], Arbor. 1: pl. 15. 1759; P. Mill., Gard. Dict., ed. 7. 1759; Jacq., Enum. Syst. Pl. Carib. 12. 1760; L., Sp. Pl., ed. 2, 1: 161. 1762; J. F. Gronov., Fl. Virg. (ed. L. T. Gronov.), 19. 1762; Adans., Fam. Pl. 2: 226, 446, & 530. 1763; Duham., Abhandl. Baum. Staud. & Sträuch. 1: 83--84 (1763) and 2: Verzeich. Burcardia. 1763; Jacq., Select. Stirp. Amer. Hist. 15: pl. 173, fig. 7. 1763; L., Gen. Pl., ed. 6, 55. 1764; L., Sp. Pl., ed. 3, 1: 161. 1764; Crantz, Inst. Rei Herb. 2: 259. 1766; L., Mant. Pl. 331. 1767; L., Gen. Pl., ed. 7, 55. 1767; P. Mill., Gard. Dict., ed. 8. 1768; Burm. f., Fl. Ind. 197 [err. "297"]. 1768; J. Mill., Diss. Brev. Princip. Bot. 40. 1769; L., Mant. Pl. Alt. 198 & [576]. 1771; Beckm., Linn. Syst. Nat., ed. 12, 2: 55. 1772; J. A. Murr. in L., Syst. Nat., ed. 13, 130, 153, & 831. 1774; Buchoz, Hist. Nat. Reg. Vég. 6: 10, pl. 5. 1775; Houtt., Lin. Pfl. Syst. 3: 101--102. 1778; Reichard, Linn. Gen. Pl., ed. 8, 56. 1778; Jacq., Select. Stirp.

- Amer. Hist. Picta 13, pl. 259, fig. 6. 1780; Thunb., Nov. Act. Reg. Soc. Sci. Upsal. 4: 31. 1783; Buchoz, Herb. Col. Amer. pl. 36 [or 43]. 1783; Lam., Encycl. Méth. 1: 54 & 562—563. 1783; Thunb., Fl. Jap. 60—61. 1784; J. A. Murr. in L., Syst. Veg., ed. 14, 153. 1784; H. Marsh., Arbust. Amer. 22—23. 1785; Jacq., Ind. Pl. Linn. Syst., ed. 14, 32. 1785; Sw., Nov. Gen. Sp. Pl. Prod. 31. 1788; H. Marsh. [transl. Lézermes], Cat. Alph. Arb. & Arbris. 35—36. 1788; Vitm., Sum. Pl. 1: 307. 1789; Schreb., Linn. Gen. Pl., ed. 9, 1: 73. 1789; A. L. Juss., Gen. Pl., ed. 1, 107. 1789; Lour., Fl. Cochinch., ed. 1, 1: 69—71. 1790; Neck., Elem. Bot. 2: 49—50. 1790; Noronha, Verh. Bat. Genootsch. 5: 17. 1790; A. L. Juss., Gen. Pl., ed. 2, 120. 1791; Bartr., Trav. 436. 1791; Gaertn., Fruct. & Sem. Pl. 2: 80—81, pl. 94. 1791; J. F. Gmel., Linn. Syst. Nat., ed. 13, 2: 211 & 246. 1791; Lam., Tabl. Encycl. Méth. [Illustr. Gen.] 1: 292—293, pl. 69, fig. 2. 1791; Haenke, Linn. Gen. Pl., ed. 10 [8], 1: 105. 1791; Lour., Fl. Cochinch., ed. 2 [Willd.], 1: 87—89. 1793; Vent., Tabl. Rég. Vég. 2: 318—319. 1794; Vahl, Symb. Bot. 3: 12—14, pl. 53. 1794; Moench, Meth. Pl. 468. 1794; W. Jones, Asiat. Res. 4: 233. 1795; J. F. Gmel., Linn. Syst. Nat., ed. 13 rev., 2 (1): 246. 1796; R. A. Salisb., Prodr. 53. 1796; Raeusch., Nom. Bot. 37. 1797; Murr. & Pers., Linn. Syst. Veg., ed. 15 [14 rev.], 159. 1797; Mawe & Abercromb., Univ. Gard. & Bot., ed. 2. 1797; Willd., Linn. Sp. Pl. 1: 619—621. 1797; Sw., Fl. Ind. Occ. 1: 250—253. 1797; Ruiz & Pav., Fl. Peruv. & Chil. 1: 49—50, pl. 77, fig. a & b. 1798; J. A. Murr., Linn. Syst. Veg., ed. 15, 127. 1798; Drayton, View South-Carol. 62. 1802; Michx., Fl. Amer. Bor., ed. 1, 1 ["2"]: 95. 1803; Barton, Elem. Bot., ed. 1, 24, pl. 10, fig. 3. 1804; Pers., Syn. Pl. 1: 133. 1805; A. L. Juss., Ann. Mus. Hist. Nat. Paris 7: 77. 1806; A. McDonald [R. W. Dickson], Compl. Dict. Pract. Gard., vol. 1. 1807; Willd., Enum. Hort. Berol. 1: 157. 1809; R. Br., Prodr. Fl. Nov. Holl. 1: 513. 1810; W. T. Ait., Hort. Kew., ed. 2, 1: 246—247. 1810; Poir. in Lam., Encycl. Méth. Suppl. 2: 32—34. 1811; Roxb., Hort. Beng. [10], 18, & 83. 1814; Pursh, Fl. Amer. Sept. 1: 96. 1814; Raf., Fl. Ludovic. 38—39. 1817; Kunth in Humb. & Bonpl., Nov. Gen. & Sp. Pl. 2: 252—253. 1818; Roem. & Schult., Linn. Syst. Veg. 3: 93—98. 1818; Schrank, Pl. Rar. Hort. Acad. Monac. 1: pl. 37. 1819; Sims in Curtis, Bot. Mag. 47: pl. 2107. 1819; Roem. & Schult., Linn. Syst. Veg. 1: 96. 1820; Michx., Fl. Amer. Bor., ed. 2, 1: 95. 1820; Wall. in Roxb., Fl. Ind., ed. 1 [Carey & Wall.], 1: 405—411. 1820; S. Elliott, Sketch Bot. S. C. 1: 199. 1821; Link, Enum. Pl. Berol. Alt. 1: 124 & 449. 1821; Roth, Nov. Pl. Spec. 81—82. 1821; Steud., Nom. Bot., ed. 1, 137. 1821; C. Agardh, Spec. Alg. 1 (2): 404. 1822; Loud., Encycl. Gard., ed. 1, 1374. 1822; Kunth, Syn. Pl. 2: 44—45. 1823; Blume, Cat. Gew. 'sLands Pl. Tuin 1823: 11. 1823; Moon, Cat. Indig. Exot. Pl. Ceyl. 10. 1824; J. Agardh, Syst. 32. 1824; Lindl., Bot. Reg. 10: pl. 864 (1825) and 11: pl. 883. 1825; W. J. Hook., Exot. Fl. 2: pl. 133. 1825; Spreng. in L., Syst. Veg., ed. 16, 1: 419—421. 1825; Blume, Bijdr. Fl. Nederl. Ind. 817—818. 1826; Loud., Encycl. Gard., ed. 4, 1177. 1826; Sweet, Hot-house & Greenh. Man., ed. 3, 41. 1826; J. A. & H. H. Schult., Mant. 3: 50—55. 1827; Reichenb. in Mössler,

- Handb. Gewächsk., ed. 1, 1: xxxvi, 198--199, & 774. 1827; Spreng. in L., Syst. Veg., ed. 16, 4 (2): 41 & 388 (1827) and 5: 126. 1828; Reichenb., Conspect. Reg. Veg. 1: 117. 1828; Wall., Numer. List 50, no. 1827--1835. 1829; Loud., Encycl. Gard., ed. 4 rev., 1177. 1830; Spreng., Linn. Gen. Pl., ed. 11 [9], 1: 80. 1830; Cham., Linnaea 7: 109--110. 1832; Roxb., Fl. Ind., ed. 2 [Carey], 1: 390--396. 1832; Reichenb. in Mössler, Handb. Gewächsk., ed. 3, 1: lxxv. 1833; Croom & Loomis, Cat. Pl. Observ. Neighb. New Bern 4. 1833; Kostel., Allgem. Mediz.-pharm. Fl. 3: 828--829. 1834; Nutt., Trans. Am. Philos. Soc., new ser., 5: 185. 1834; Bachm., Cat. Phaenog. Pl. Charleston 5. 1834; Hook., Comp. Bot. Mag. 1: 176 & 349. 1836; Hook. & Arn., Bot. Beech. Voy. 205--206 & 268. 1836; Barton, Elem. Bot., ed. 2, 222, pl. 10, fig. 3. 1836; Boj., Hort. Maurit. 257--258. 1837; Croom, Cat. Pl. 25. 1837; Blanco, Fl. Filip., ed. 1, 517. 1837; Endl., Gen. Pl. 637. 1838; Raf., Sylv. Tellur. 161. 1838; Hook. & Arn., Bot. Beech. Voy. 305. 1838; D. Dietr., Syn. Pl. 1: 428--429. 1839; J. Grah., Cat. Pl. Bombay 156. 1839; Sweet, Hoth. & Greenh. Man., ed. 6, 45 & 266. 1839; Dillwyn, Rev. Ref. Hort. Malab. 19. 1839; Steud., Nom. Bot., ed. 2, 1: 257. 1840; Peterm., Cod. Bot. Linn. Ind. Alph. 33. 1840; Audubon, Birds Amer. 2: pl. 86. 1841; Pers., Sp. Pl. 1: 342--343. 1842; Presl, Bot. Bemerk. 98. 1844; Sieb., Jaarb. Konink. Nederl. Maatsch. Tuinb. 1844: 25. 1844; Hassk., Cat. Pl. Hort. Bot. Bogor. Alt. 136. 1844; A. W. Chapm., West. Journ. Med. Surg., new ser., 3 (6): 14. 1845; Sieb., Jaarb. Konink. Nederl. Maatsch. Tuinb. [Ann. Hort. Pays-Bas] 1845: 71, pl. 5 & 6. 1845; Blanco, Fl. Filip., ed. 2, 360. 1845; Walp., Repert. Bot. Syst. 4: 72 & 125--131. 1845; Zoll. & Moritz., Syst. Verzeich. 53. 1845--1846; Jacques & Héring, Man. Gén. Pl. Arb. & Arbust. 3: 405 & 502--504. 1845--1862; Lindl., Veg. Kingd. 663--664. 1846; Sieb. & Zucc., Abhand. Math.-phys. Cl. Königl. Baier. Akad. Wiss. München 4 (3): 154--156. 1846; Sieb. & Zucc., Fl. Jap. Fam. Nat. 2: 30 & 115. 1846; Porcher, Med.-bot. Cat. Pl. 12. 1847; G. W. Johnson, Dict. Mod. Gard. 113. 1847; Schau. in A. DC., Prodr. 11: 640--647, 649, & 654. 1847; W. Griff., Itin. Notes [Posth. Papers 2:] 94, no. 1390, & 406. 1848; Rich. Schomb., Versuch Faun. & Fl. Brit.-Guian. 959. 1848; G. White, Statist. State Ga. Suppl. Cat. 48. 1849; R. Wight, Icon. Pl. Ind. Orient. 4: pl. 1480. 1849; A. Rich. in Sagra, Hist. Fis. Polit. Nat. Cuba 11 (2): 144--145. 1850; R. Wight, Illust. Ind. Bot. 2: 217, pl. 173b. 1850; Schau. in Mart., Fl. Bras. 9: 282, 288, & 307--308. 1851; Paxt. in Paxt. & Lindl., Flow. Gard. 2: 165. 1851--1852; Walp., Ann. Bot. Syst. 3: 236--237. 1852; Riddell, Cat. Pl. Ludovic. in New-Orleans Med. Surg. Journ. 8: 757. 1852; Regel, Gartenfl. 1: 120. 1852; Champ. & Benth. in Hook., Journ. Bot. & Kew Gard. Misc. 5: 135--136. 1853; Lindl. & Paxt. in Paxt., Flow. Gard. 2: 165--166. 1853; W. Griff., Notul. Pl. Asiat. 4: 173, Icon. pl. 447 & 448, fig. 2. 1854; Royle, Fib. Pl. India 310--311. 1855; Tul., Ann. Soc. Nat., ser. 4, 3: 34. 1855; A. Gray, Man. Bot., ed. 2, 299. 1856; Miq., Fl. Ind. Bat. 2: 884--890. 1856; A. Gray in M. C. Perry, Narr. Exped. China Seas & Japan 2: 316. 1856; Griseb., Abhand. Königl. Gesell. Götting. 7: 256. 1857; A. Gray, Man. Bot., ed. 2 rev., pr. 1, 299 (1857) and pr. 2,

299. 1858; Van Houtte, Fl. Serres, ser. 2, 13: 127--128, pl. 1359. 1858; Lindl., Gard. Chron. 1859: 96. 1859; Lem. & Verschaf., Illust. Hort. 6: pl. 202. 1859; Greenland, Rev. Hort., ser. 4, 8: 106--108, fig. 24 & 25. 1859; Kwa-wi [trans. Savatier], Arb. 1: pl. 15. 1859; A. Gray, Man. Bot., ed. 2 rev., pr. 3, 299. 1859; E. G. & A. Henderson, Illust. Bouquet 2: pl. 29. 1859--1861; Lesq., Bot. & Paleont. Rep. Ark. [Rep. Geol. Recon. Mid. South Co. Ark. 2:] 377. 1860; Regel, Gartenfl. 9: 56. 1860; Feay, Oglethorpe Med. & Surg. Journ. 3: 174. 1860; C. Muell. in Walp., Ann. Bot. 5: 709. 1860; Miq., Fl. Ind. Bat. Suppl. 1: 243 & 569. 1860; F. Mason, Burmah, ed. 2, 792. 1860; Ettingsh., Blatt-Skel. Dikot. 81, pl. 32, fig. 9. 1861; Dalz. & Gibson, Bombay Fl. 200. 1861; W. Wood, Class-book Bot., pr. 1, 538. 1861; Floral World & Gard. Guide 4: 192 & 193. 1861; Griseb., Fl. Brit. W. Ind. 498--499. 1861; Sieb. & de Vriese, Ann. Hort. Bot. Pays-Bas [Fl. Jard.] 4: 97. 1861; Hérincq, Hort. Franç., ser. 2, 3: 11--12, pl. 4. 1861; A. Gray, Man. Bot., ed. 3, 299. 1862; Rosenth., Syn. Pl. Diaph. 430 & 1130. 1862; Bocq., Adansonia 2: 86, 103--105, 108, 112, 113, 115, 119, 121, 124, 126, 127, 129, 131, 132, 137, 139--141, 143--146, 148--152, 154, 155, 158, 159, & [383]. 1862; Griseb., Pl. Wright. 2: 529. 1862; A. Wood, Class-book Bot., pr. 2, 538. 1863; Turcz., Bull. Soc. Imp. Nat. Mosc. 36 (2): 217--218. 1863; A. Gray, Man. Bot., ed. 4, pr. 1, 299. 1863; Regel, Gartenfl. 12: 101. 1863; Bocq., Adansonia 3: 178, 180, 182, 183, 185, 186, 191--194, & 383, pl. 8, fig. 8--22. 1863; Bocq., Rev. Verbenac. 83, 86, 103--105, 108, 112, 115, 119, 121, 124, 126, 127, 129, 131, 132, 137, 139--141, 143--146, 148--152, 154, 155, 158, 159, 178, 180, 182--186, 191--194, & 263, pl. 8, fig. 8--22. 1863; Thwaites, Enum. Pl. Zeyl. 243. 1864; A. Gray, Man. Bot., ed. 4, pr. 2, 299. 1864; Decne., Nouv. Ann. Mus. Hist. Nat. Paris 3: 401. 1865; Miq., Ann. Mus. Bot. Lugd.-Bat. 2: 98--99. 1865; Griseb., Cat. Pl. Cub. 216. 1866; Pritz., Icon. Bot. Ind. 1: 188 (1866) and 2: 55. 1866; Hassk., Neu. Schlüss. Rumph. Herb. Amboin. 84. 1866; F. Muell. in Landsb., Explor. Austr. 119. 1866; Hance, Ann. Sci. Nat., ser. 5, 5: 233. 1866; M. A. Curtis, Geol. & Nat. Hist. Surv. N. Carol. 3: 40. 1867; A. Wood, Class-book Bot., pr. 3, 538. 1867; A. Gray, Man. Bot., ed. 5, pr. 1, 341. 1867; Hassk., Hort. Malab. Rheed. Clav. 38. 1867; A. DC., Prodr. 16 (2): 645. 1868; A. Gray, Man. Bot., ed. 5, pr. 2 & 3, 341. 1868; A. Gray, Field For. Gard. Bot., pr. 1, 241 & 243. 1868; Sauvalle, Fl. Cub. 112--113. 1868; A. Gray, Field For. Gard. Bot., pr. 2, 241 & 342. 1869; A. Gray, School & Field Book Bot., pr. 1, 241 & 243. 1869; Regel, Gartenfl. 18: 164. 1869; A. Wood, Class-book Bot., pr. 4, 538. 1870; A. Gray, Man. Bot., ed. 4, pr. 3, 299. 1870; A. Wood, Am. Bot. & Flor., pr. 1, 236--237. 1870; Miq., Cat. Mus. Bot. Lugd.-Bat. 70. 1870; Benth. & F. Muell., Fl. Austral. 5: 56--58. 1870; M. T. Masters, Gard. Chron. 1871: 173, fig. 38 & 39. 1871; Featherm., Rep. Bot. Surv. South. & Cent. La. 99. 1871; A. Wood, Am. Bot. & Flor., pr. 2, 236--237. 1871; A. Wood, Class-book Bot., pr. 5, 538. 1872; A. Gray, School & Field Book Bot., pr. 2, 241 & 243. 1872; Beddome, Fl. Sylv. S. Ind. Anal. Gen. pl. 21. 1872; H. Drury, Usef. Pl. India 97. 1873; Hance, Journ. Linn. Soc. Lond. Bot. 13: 116.

- 1873; Beddome, Forester's Man. Bot. S. Ind. 173. 1873; Savatier in Yonan-Si, Liv. Kwawi 78. 1873; A. Wood, Am. Bot. & Flor., pr. 3, 236—237. 1873; M. J. Young, Fam. Less. Bot. 404 & 406—407. 1873; E. Hall, Pl. Tex. 17. 1873; Brandis, For. Fl. NW. & Cent. India 3: 368. 1874; Roxb., Fl. Ind., ed. 3 [C. B. Clarke], 131—133. 1874; S. Kurz, Prelim. Rep. For. Veg. Pegu app. A: xcvi (1875) and app. B: 71. 1875; Franch. & Savatier, Enum. Pl. Jap. 1: 358. 1875; A. Wood, Am. Bot. & Flor., pr. 4, 236—237. 1875; Koehler, Pract. Bot. 168 & 319. 1876; Benth. in Benth. & Hook., Gen. Pl. 2 (2): 1150—1151. 1876; Regel, Gartenfl. 25: 182. 1876; L. F. Ward, Tex. Pl. 4. 1877; S. Kurz, Forest Fl. Brit. Burma 2: 273—275. 1877; A. Gray, School & Field Book Bot., pr. 3, 241 & 243. 1878; A. Gray, Man. Bot., ed. 5, pr. 8. 341. 1878; Gamble, List Trees Darj. Dist. 60. 1878; C. Mohr, Forests Ala. [12]. 1878; A. Gray, Syn. Fl. N. Am. 2 (1): 333 & 340. 1878; Blanco, Fl. Filip. pl. 427 bis. 1878—1880; A. Wood, Fl. Atlant. 236—237. 1879; A. Gray, School & Field Book Bot., pr. 4, 241 & 243. 1879; C. Mohr, Prelim. List Pl. Ala. 29. 1880; The Gardener 1880: 518. 1880; A. Wood, Class-book Bot., pr. 6, 538. 1880; A. Gray, Man. Bot., ed. 5, pr. 9, 341. 1880; A. Gray, School & Field Book Bot., pr. 5, 241 & 243. 1881; P. Henderson, Handb. Pl. 34—35. 1881; Regel, Gartenfl. 1881: 42. 1881; Gamble, Man. Ind. Timb. 282—283. 1881; W. B. Hemsl., Biol. Cent.-Am. Bot. 2: 538. 1881—1882; Rolfe, Journ. Bot. 20: 358—359. 1882; F. Muell., First Census 103. 1882; E. T. Atkinson, Statist. Acct. NW. Prov. 10: 730. 1882; F. M. Bailey, Syn. Queensl. Fl. 377. 1883; O. A. Reade, Pl. Bermud. 62. 1883; W. Robinson, The Garden 23: 540, pl. 392. 1883; Vidal, Sin. Fam. Gen. Pl. Lefl. Filip. 203 & 338, pl. 34, fig. C. 1883; Lauche, Deutsch. Dendrol., ed. 2, 151. 1883; Rolfe, Journ. Linn. Soc. Lond. Bot. 21: 315. 1884; Nichols., Ill. Dict. Gard., pr. 1, 1: 242. 1884; Lefroy, Bull. U. S. Nat. Mus. 25: 97. 1884; W. Mill., Dict. Eng. Names Pl. 171. 1884; F. M. Bailey, Proc. Roy. Soc. Queensl. 1: 70. 1884; Trimen, Syst. Cat. Flow. Pl. Ceylon 68. 1885; C. B. Clarke in Hook. f., Fl. Brit. Ind. 4: 566—570. 1885; W. B. Hemsl., Rep. Scient. Res. Voy. Challenger Bot. 1 (1): 110, 128b, & 176. 1885; E. Balf., Cyclop. Ind., ed. 3, 1: 550. 1885; S. M. Tracy, Cat. Mo. Pl. 66. 1886; Campbell & Watt, Descrip. Cat. Econom. Prod. Chutia Nagpur 41 & 65. 1886; Maxim., Bull. Acad. Imp. Sci. St.-Petersb. 31: 77—78. 1886; Wood & Mc Carthy, Journ. Elisha Mitch. Scient. Soc. 1887: [Wilmington Fl.] 38. 1886; Maxim., Mém. Biol. 503—510. 1886; Vidal, Revis. Pl. Vasc. Filip. 208. 1886; A. Gray, School & Field Book Bot., pr. 6, 241 & 243. 1887; G. Nichols., Ill. Dict. Gard., pr. 2, 1: 242. 1887; Gattinger, Tenn. Fl. 71. 1887; Garden. Ill. 9: 323. 1887; G. Nichols., Suppl. Dict. Gard. 258 & 287. 1887—1888; Schaffranek, Flor. Almanac 18. 1888; Mak., Bot. Mag. Tokyo 2: [220]. 1888; A. Wood, New Am. Bot. & Flor. [ed. O. R. Willis], 236—237. 1889; F. Muell., Sec. Census 173. 1889; F. M. Bailey, Rep. Gov. Sci. Exp. Bell.-Ker 52. 1889; Watt, Dict. Econom. Prod. Ind. 2: 26—27. 1889; F. J. Muller, Am. Gard. 10: 463. 1889; A. W. Chapm., Fl. South. U. S., ed. 2, pr. 3, 309. 1889; A. Gray, Man. Bot., ed. 6, 403. 1890; G. W. Johnson, Gard. Dict. 157 & 891. 1890; Forbes &

Hemsl., Journ. Linn. Soc. Lond. Bot. 26: [Ind. Fl. Sin. 2:] 252—255. 1890; P. Henderson, Handb. Pl., new ed., 64. 1890; F. M. Bailey, Cat. Pl. Queensl. 35. 1890; Branner & Coville, Ann. Rep. Geol. Surv. Ark. 1888 (4): [List Pl. Ark.] 211. 1891; Meehan, Am. Flor. 6: 490. 1891; Coll. & Hemsl., Journ. Linn. Soc. Lond. Bot. 28: 109. 1891; Milner, Gard. Chron., ser. 3, 10: 101 & 103. 1891; Kuntze, Rev. Gen. Pl. 2: 503. 1891; Warb. in Engl., Bot. Jahrb. 13: 426. 1891; Featherm., Rep. Bot. Surv. South. Cent. La. 99. 1891; J. M. Coult., Contrib. U. S. Nat. Herb. 2: [Man. Phan. West. Tex.] 330. 1892; Mak., Bot. Mag. Tokyo 6: 54 & [181]. 1892; W. Falconer, Am. Flor. 7: 1069. 1892; Jacks. in Hook. f. & Jacks., Ind. Kew. 1: 386. 1893; Sessé & Moc., Pl. Nou. Hisp. 2: 18. 1893; Sessé & Moc., Fl. Mex. 2: 18. 1893; Fawcett, Prov. List Indig. Nat. Flow. Pl. Jamaica 30. 1893; Bergen, Pop. Am. Plant-names. 1893; Duthie, Rec. Bot. Surv. Ind. 1: 67 & 83. 1893; Moore & Betche, Handb. Fl. New S. Wales 355 & 356. 1893; Temple, Gardening 1: 276. 1893; Proc. Iowa Acad. Sci. 1 (3): 71. 1893; F. M. Bailey, Bot. Bull. 8: 81. 1893; Bois, Dict. Hort. 1: 232. 1893—1899; Sessé & Moc., Fl. Mex., ed. 2, 17. 1894; W. A. Talbot, Syst. List Trees & Shrubs Bomb. 159—160 & 216. 1894; Nairne, Flow. Pl. West. Ind. 247. 1894; Jacks. in Hook. f. & Jacks., Ind. Kew. 2: 1253. 1895; Shirasawa, Bull. Coll. Agric. Tokyo Imp. Univ. 2: [Jap. Laubh. Winterzust.] 269, pl. 14, fig. 8—10. 1895; Usef. Pl. Jap. 2: pl. 656. 1895; Millsp., Field Columb. Mus. Publ. Bot. 1: 42. 1895; Trimen, Hand-book Fl. Ceylon 3: 349—350. 1895; Briq. in Engl. & Prantl, Nat. Pflanzenfam. 4 (3a): 165—166. 1895; A. Gray, Field For. Gard. Bot., pr. 3, 339 & 342. 1895; Briq., Bull. Herb. Boiss. 4: 345—346. 1896; A. Henry, Trans. Asiat. Soc. Jap. 24, Suppl. [List Pl. Formos.] 70. 1896; Millsp., Field Columb. Mus. Publ. Bot. 1: 316. 1896; H. H. Rusby, Mem. Torrey Bot. Club 6: 106. 1896; Just, Bot. Jahresber. 23 (2): 76 & 511. 1897; Urbina, Cat. Pl. Mex. 281. 1897; Meehan, Gardening 5: 197. 1897; T. W. Sanders, Encyc. Gard., ed. 2, 46. 1897; Britton & Br., Illustr. Fl., ed. 1, 3: 73—74, fig. 3068. 1898; Gammie, Rec. Bot. Surv. Ind. 1: 206. 1898; Pottinger & Prain, Rec. Bot. Surv. Ind. 1: 258 & 297. 1898; A. S. Hitchc., Trans. Kans. Acad. Sci. 16: 147. 1899; Matsum., Bot. Mag. Tokyo 13: 114—115. 1899; Hyams, N. Carol. Agr. Exp. Sta. Bull. 164: [Fl. N. Carol.] 332. 1899; F. M. Bailey, Queensl. Woods 104. 1899; J. L. Stewart, Punjab Pl. 165. 1899; Kearney, Contrib. U. S. Nat. Herb. 5: 317. 1900; Koord. & Valet., Bijdr. Kenn. Booms. Java 7: 175—177. 1900; Diels in Engl., Bot. Jahrb. 29: 547—548. 1900; G. Nichols., 1900 Suppl. Dict. Gard. 185. 1900; Kearney, Science, new ser., 12: 832, 834, 835, & 840. 1900; H. N. Ridl., Journ. Asiat. Soc. Straits 23: [Fl. Singapore] 122—123. 1900; R. M. Harper, Bull. Torrey Bot. Club 27: 420. 1900; K. Schum. & Lauterb., Fl. Deutsch. Schutzgeb. Südsee 521—522. 1900; C. Mohr, Contrib. U. S. Nat. Herb. 6: [Pl. Life Ala.] 695. 1901; Kearney, Contrib. U. S. Nat. Herb. 5: 379, 380, 456, & 539. 1901; Garcia Caffizares, Fl. Cub. 69. 1901; Durand & Jacks., Ind. Kew. Suppl. 1: 73. 1901; Gattinger, Fl. Tenn. 143. 1901; N. L. Britton, Man. Fl. North. U. S., ed. 1, 779. 1901; J. Britten in Banks & Solander, Ill. Austr. Pl. Endeavour 1: 74

- (1901) and 2: pl. 237. 1901; Diels in Engl., Bot. Jahrb. 29: 547. 1901; Banks & Soland., Bot. Cook's Voy. 2: pl. 237. 1901; F. M. Bailey, Queensl. Fl. 4: 1174. 1901; J. J. Wood, Rec. Bot. Surv. India 2: 20—21 & 129. 1902; W. P. Wright in Cassell, Dict. Pract. Gard., ed. 1, 1: 156. 1902; K. Schum. in Just, Bot. Jahresber. 28 (1): 495. 1902; Verrill, Trans. Conn. Acad. Arts & Sci. 11 (2): 576 & 656. 1902; F. S. Earle, Bull. Ala. Agr. Exp. Sta. 119: 101. 1902; Parkhurst, Trees Shrubs Vines NE. U. S. 273. 1903; J. K. Small, Fl. Southeast. U. S., ed. 1, 1015. 1903; Peet, Trees & Shrubs Prospect Park 4. 1903; Gard. Illustr. 24: 633. 1903; C. K. Schneid., Dendrol. Winterstud. 188, 198, & 267. 1903; Prain, Beng. Pl. 827. 1903; E. D. Merr., Philip. Bur. Forest. Bull. 1: 51. 1903; C. B. Clarke in Schmidt, Bot. Tidsskr. 26: 171—172. 1904; Mak., Bot. Mag. Tokyo 18: 46—47. 1904; Thiselt.-Dyer, Ind. Kew. Suppl. 2: 32. 1904; Gilg & Loes. in Engl., Bot. Jahrb. 34, Beibl. 75: 61. 1904; F. M. Bailey in Meston, Exped. Bell.-Ker. Parliam. Rep. 14. 1904; T. Cooke, Fl. Presid. Bombay 423. 1905; N. L. Britton, Man. Fl. North. U. S., ed. 2, 779. 1905; Prain, Rec. Bot. Surv. Ind. 3: 260. 1905; Gardening 27: 47 & 72. 1905; F. N. Will., Bull. Herb. Boiss., ser. 2, 5: 430. 1905; E. D. Merr., Philip. Bur. Govt. Lab. Bull. 29: 47—48 & 57—58. 1905; H. Winkl., Ann. Jard. Bot. Buitenz. 20: 12—19. 1906; Baerecke, Analyt. Key Ferns & Flow. Pl. 115. 1906; Hayek in Fedde, Repert. Spec. Nov. 2: 88. 1906; E. D. Merr., Philip. Journ. Sci. Bot. 1, Suppl. 1: 121. 1906; Strachey & Duthie, Cat. Pl. Kumaon 136. 1906; R. M. Harper, Pl. World 9: 266 & 267. 1906; Millsp., Field Columb. Mus. Publ. Bot. 2: 180—181. 1906; Kehd. in Bailey & Mill., Cycl. Am. Hort. 1: 217. 1906; Matsum. & Hayata, Journ. Coll. Sci. Univ. Tokyo 22: [Enum. Pl.] 298—299. 1906; Bray, Univ. Tex. Bull. 82, Scient. Ser. 10: [Distrib. & Adapt. Veg. Tex.] 68. 1906; R. M. Harper, Ann. N. Y. Acad. Sci. 17 (1): 99, 103, 111, 169, & 332. 1906; J. W. Blankinship in Engelm. & Gray, Ann. Rep. Mo. Bot. Gard. 18 [Pl. Lindh. 3]: 186. 1907; W. P. Wright in Cassell, Dict. Pract. Gard., ed. 2, 1: 156. 1907; Valet., Bull. Dept. Agr. Ind. Néerl. 10: 51. 1907; M. A. Day, Check List 128. 1908; Shirasawa, Nippon Shinrin Jumoku Dzufu [Icon. Ess. Forest. Jap.] 2: pl. 70, fig. 20—27. 1908; Robinson & Fern. in A. Gray, New Man. Bot., ed. 7, 688, 690, & 891, fig. 1908; King & Gamble, Kew Bull. Misc. Inf. 1908: 105—106. 1908; W. P. Wright in Cassell, A.B.C. Gard. 74. 1908; Urb., Symb. Antil. 5: 485—486. 1908; Prain, Ind. Kew. Suppl. 3: 32. 1908; S. T. Dunn, Journ. Linn. Soc. Lond. Bot. 38: 363. 1908; Elm., Leaflet. Philip. Bot. 1: 336—338 (1908) and 2: 513—514. 1908; C. B. Robinson, Philip. Journ. Sci. Bot. 3: 215. 1908; E. D. Merr., Philip. Journ. Sci. Bot. 3: 262—263. 1908; King & Gamble, Journ. Asiat. Soc. Bengal 74 (2), extra no. 794 & 802—808. 1908; Millsp., Field Columb. Mus. Publ. Bot. 2: 312—313. 1909; Urb. in Fedde, Repert. Spec. Nov. 7: 285. 1909; E. D. Merr., Philip. Journ. Sci. Bot. 3: 430—431. 1909; King & Gamble, Mat. Fl. Malay. Penins. 21: 1012—1018. 1909; H. N. Ridl., Journ. Fed. Malay St. Mus. 4: 56. 1909; Nakai, Fl. Kor. 2: 135. 1909; Apgar, Ornament. Shrubs U. S. 289—290, fig. 503—505. 1910; Kawakami, List Pl. Formosa 83—84. 1910; P. Henderson, Handb. Pl., new ed.,

65. 1910; Elm., Leafl. Philip. Bot. 3: 861--866. 1910; Mak., Bot. Mag. Tokyo 24: 28--29. 1910; Merr. & Merritt, Philip. Journ. Sci. Bot. 5: 380--381. 1910; Burkill, Rec. Bot. Surv. Ind. 4: 125. 1910; C. K. Schneid., Illust. Handb. Laubholz. 2: 587--594. 1911; Harshberger in Engl. & Drude, Veget. Erde 13: [Phytogeog. Surv. N. Am.] 227, 431, 433, 487, 508, & 700. 1911; Lévl. in Fedde, Repert. Spec. Nov. 9: 325, 439, 443, & 455--456. 1911; Fedde, Repert. Spec. Nov. 10: 64. 1911; Goyena, Fl. Nicarag. 2: 566. 1911; Hayata, Veget. Mt. Fuji 67. 1911; Willis, Rev. Cat. Indig. Flow. Pl. Ceylon 69. 1911; Urb., Symb. Antil. 7: 355--357. 1911; Hayata, Journ. Coll. Sci. Imp. Univ. Tokyo 30 (1): [Mater. Fl. Formos.] 218--223. 1911; Craib, Kew Bull. Misc. Inf. 9: 442. 1911; Hosséus, Beih. Bot. Centralbl. 28 (2): 429. 1911; Gerth van Wijk, Dict. Plantnames 217. 1911; Talbot, Forest Fl. Bombay 2: 345. 1911; Coker, Pl. Life Hartsville 31, 34, & 100. 1912; Hesse, Mitteil. Deutsch. Dendrolog. Gesell. 21: 366--369. 1912; Dunn, Kew Bull. Misc. Inf. 1912: 368. 1912; Lévl. in Fedde, Repert. Spec. Nov. 10: 64 & 439. 1912; E. D. Merr., Philip. Journ. Sci. Bot. 7: 338--342. 1912; J. Matsumura, Ind. Pl. Jap. 2 (2): 528--530. 1912; Jacks., Proc. Linn. Soc. Lond. 124, suppl. [Ind. Linn. Herb.] 49. 1912; Hayata, Icon. Pl. Formos. 2: 125--126, pl. 35--38. 1912; Craib, Contrib. Fl. Siam Dicot. 163. 1912; Elbert, Meded. Rijks Herb. Leid. 12: 15. 1912; Koord., Exkursionsfl. Java 3: 134. 1912; Loes., Verh. Bot. Ver. Brand. 53: 81 [Abhandl. 246]. 1912; Dunn & Tutcher, Kew Bull. Misc. Inf. Addit. Ser. 10: 201--203 & 361. 1912; McAtee, Proc. Biol. Soc. Wash. 26: 49. 1913; Hickel, Bull. Soc. Dendrol. France 28: 110--111, fig. 45e. 1913; Britton & Br., Ill. Fl. North. U. S., ed. 2, 3: 99, fig. 3563. 1913; Lévl. in Fedde, Repert. Spec. Nov. 12: 182. 1913; Matsuda, Bot. Mag. Tokyo 27: 273--274. 1913; F. M. Bailey, Compreh. Cat. Queensl. Pl. 382--386. 1913; Rehd. in C. S. Sarg., Pl. Wils. 1: 310. 1913; J. K. Small, Shrubs Fla. 117. 1913; J. K. Small, Fl. Miami 159 & 161. 1913; Prain, Ind. Kew. Suppl. 4: 34. 1913; H. B. Small, Bot. Bermuda 48--49. 1913; J. K. Small, Fl. Southeast. U. S., ed. 2, 1015. 1913; Varacek, Oesterr. Gart.-Zeit. 8: 276--277, fig. 115. 1913; McAtee, Torreya 13: 234. 1913; Ramo Rao, Flower. Pl. Travancore 314. 1914; Koord. & Val., Atlas Baumart. Java 5: pl. 275. 1914; H. J. Lam in H. Hallier, Meded. Rijks Herb. Leid. 37: 32--34. 1914; Rehd. in L. H. Bailey, Stand. Cycl. Hort. 2: 628--629. 1914; Fedde, Repert. Spec. Nov. Gesamtverz. 58. 1914; H. Pittier, Contrib. U. S. Nat. Herb. 18: 77. 1914; R. M. Harper, Ann. Rep. Fla. State Geol. Surv. 6: [Geogr. & Veget. North. Fla.] 198, 213, 220, 245, 261, 274, 293, & 340. 1914; Koidz., Bot. Mag. Tokyo 28: 151--152. 1914; Mak., Bot. Mag. Tokyo 28: 181--182. 1914; E. D. Merr., Philip. Journ. Sci. Bot. 9: 134--135. 1914; Harshberger, Trans. Wagner Free Inst. Sci. Philad. 7 (3): [Veget. S. Fla.] 91, 119, & 126. 1914; R. M. Harper, Bull. Torrey Bot. Club 41: 560. 1914; Lévl., Fl. Kouy-Tchéou 66. 1914; W. J. Bean, Trees & Shrubs Hardy Brit. Isls., ed. 1, 2: 280 & 703. 1914; R. M. Harper, Ann. Rep. Fla. State Geol. Surv. 7: 169, 171, 174, & 176. 1915; Elm., Leafl. Philip. Bot. 8: 2870--2873. 1915; E. D. Merr., Philip. Journ. Sci. Bot. 10: 70--72. 1915; F. S. Mathews, Field Book Am.

- Trees 383 & 385. 1915; Nakai, Fl. Quelp. Isls. 76. 1915; Nakai, Fl. Mt. Chirisan 43. 1915; Lévl. Fl. Kouy-Tchéou 440. 1915; Lévl., Sert. Yunnan. 2. 1916; E. D. Merr., Philip. Journ. Sci. Bot. 11: 309. 1916; Stapf in Curtis, Bot. Mag. 142: pl. 8682. 1916; Hayata, Icon. Pl. Formos. 6: pl. 35. 1916; Koidz., Bot. Mag. Tokyo 30: 326. 1916; Rehd. in C. S. Sarg., Pl. Wils. 3: 366—371. 1916; J. K. Small, Journ. N. Y. Bot. Gard. 18: 99—100. 1917; E. D. Merr., Philip. Journ. Sci. Bot. 12: 108 & 298—301. 1917; E. D. Merr., Interpret. Rumph. Herb. Amboin. 448—449, 526, & 559. 1917; Ewart & Davies, Fl. North. Terr. 237. 1917; E. D. Merr., Journ. Straits Br. Roy. Asiat. Soc. 76: 113—114. 1917; Pollard in N. Webster, New Internat. Dict. Eng. Lang. 312 & 2278. 1917; Lévl., Ct. Pl. Yun-nan 277. 1917; Kanehira, Formos. Trees, ed. 1, 394. 1917; Heyne, Nutt. Pl. Nederl. Ind. 4: 107—108. 1917; Nakai, Rep. Veg. Diamond Mts. 183. 1917; N. L. Britton, Fl. Bermuda 318—319. 1918; Basu, Ind. Medic. Pl. 3: 3, pl. 732a—734. 1918; W. Trelease, Wint. Bot., ed. 1, 331. 1918; Fuller, Propag. Pl. 258 & 335. 1918; Messel, Gard. Fl. 26. 1918; Koidz., Bot. Mag. Tokyo 32: 56 & 136—137. 1918; E. D. Merr., Philip. Journ. Sci. Bot. 13: 57—58 & 155—156. 1918; G. V. Nash, Addisonia 3: 45, pl. 103. 1918; H. J. Lam, Verbenac. Malay. Arch. 45—92, [345]—347, 349, & [361]—362. 1919; E. D. Merr., Philip. Journ. Sci. Bot. 14: 249 & 451—452. 1919; R. M. Harper, Bull. Torrey Bot. Club 47: 305 & 309. 1920; E. D. Merr., Philip. Journ. Sci. Bot. 17: 313—314. 1920; R. M. Harper, Ecology 1: 202. 1920; M. S. Young, Univ. Tex. Bull. 2065: [Seed Pl. Austin] 66. 1920; N. L. Britton, Mem. Torrey Bot. Club 16: 96—98. 1920; Britton & Millsp., Bahama Fl. 373. 1920; H. N. Ridl., Journ. Fed. Malay St. Mus. 10: 110 & 150. 1920; G. V. Nash, Journ. N. Y. Bot. Gard. 21: 58. 1920; Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 1, 3, 9—27, & [106]—108. 1921; R. M. Harper, Ann. Rep. Fla. State Geol. Surv. 13: [Geogr. Cent. Fla.] 100, 106, & 116. 1921; C. E. C. Fischer, Rec. Bot. Surv. Ind. 9: 140. 1921; Hand.-Mazz., Anzeig. Akad. Wiss. Math.-nat. Wien 58: 230. 1921; Hand.-Mazz., Pl. Nov. Sin. Forts. 14: 4. 1921; E. N. Lowe, Miss. State Geol. Surv. Bull. 17: [Pl. Miss.] 237. 1921; Prain, Ind. Kew. Suppl. 5: 43—44. 1921; Urb. in Fedde, Repert. Spec. Nov. 18: 119—120. 1922; Hand.-Mazz., Anzeig. Akad. Wiss. Math.-nat. Wien 59: 110. 1922; Nakai, Bot. Mag. Tokyo 36: 22—23. 1922; E. D. Merr., Philip. Journ. Sci. Bot. 20: 437. 1922; E. D. Schulz, 500 Wild Fls. 180. 1922; H. A. Marshall, Physiol. Reprod. 652. 1922; Nakai, Trees & Shrubs Japan, ed. 1, 336—340. 1922; H. N. Ridl., Fl. Malay Penins. 614—617. 1923; Nakai, Fl. Sylv. Kor. 14: 27—33, pl. 5—9. 1923; E. D. Merr., Enum. Philip. Pl. 3: 382—389. 1923; E. D. Merr., Journ. Malay. Br. Roy. Asiat. Soc. 1: 31—32. 1923; H. N. Ridl., Journ. Malay. Br. Roy. Asiat. Soc. 1: [Mal. For. Trees] 83—84 & 476. 1923; Mottet, Rev. Hort. 94: 390—391. 1923; H. J. Lam in Lauterb., Engl. Bot. Jahrb. 59: 24—25 & 88—90. 1924; Bakh. in Bakh. & Lam, Nov. Guinea 14, Bot. 1: 167—168. 1924; P. C. Standl., Contrib. U. S. Nat. Herb. 23: [Trees & Shrubs Mex.] 1235 & 1253. 1924; H. H. Chung, Mem. Sci. Soc. China 1 (1): 225—226. 1924; Urb. in Fedde, Repert. Spec. Nov. 20: 345—346. 1924; Olmstead, Coville, & Kelsey, Stand. Pl. Names, ed. 1, 61.

- 1924; W. J. Bean, *Shrubs Amateurs* 26 & 42. 1924; L. H. Bailey, *Man. Cult. Pl.* 633. 1924; Mak., *Ill. Fl. Jap.* [894]. 1924; Gamble, *Fl. Presid. Madras 1091—1092.* 1924; Nakai, *Bot. Mag. Tokyo* 38: 46. 1924; W. Trelease, *Wint. Bot.*, ed. 2, 333. 1925; Koidz., *Bot. Mag. Tokyo* 39: 8. 1925; Britton & Wils., *Scient. Surv. Porto Rico* 6 (1): 147. 1925; S. Moore, *Journ. Bot. Lond.* 63, Suppl. 80. 1925; Clute, *Amer. Bot.* 31: 29. 1925; H. J. Lam in Engl., *Bot. Jahrb.* 59: 25. 1925; Stipp, *Gartenwelt* 29: 49—51. 1925; Leray, *Rev. Hort.* 97: 416. 1925; W. J. Bean, *Trees & Shrubs Hardy Brit. Isls.*, ed. 4, 1: 280. 1925; E. D. Merr., *Philip. Journ. Sci. Bot.* 30: 86—87. 1926; Nakai, *Bot. Mag. Tokyo* 40: 492. 1926; Leeuwen-Reijnvaan & Leeuwen, *Lands Plant. Bot. Gard. Buitenz. Zooced. Netherl. East Ind.* 483—486. 1926; M. F. Baker, *Fla. Wild Fls.* 191—192. 1926; Calder, Narayanaswami, & Ramaswami, *Rec. Bot. Surv. Ind.* 11: 24. 1926; E. D. Merr., *Disc. & Bibl. Philip. Flow. Pl.* 62, 88, & 100. 1926; J. Hutch., *Fam. Flow. Pl.* 1: 309. 1926; N. L. Britton, *Bull. Torrey Bot. Club* 53: 463. 1926; A. W. Hill, *Ind. Kew. Suppl.* 6: 34. 1926; Rehd., *Journ. Arnold Arb.* 8: 16—17, 192—194, & 240. 1927; R. M. Harper, *Ann. Rep. Fla. State Geol. Surv.* 18: [Nat. Res. South. Fla.] 104 & 108. 1927; Rehd., *Man. Cult. Trees*, ed. 1, 775—776. 1927; T. Itô, *Taiwan Shokubutu Dzusetsu [Illustr. Formos. Pl.]* pl. 601—606. 1927; Cloud, *Cult. Shrubs* 120—121. 1927; Nakai, *Trees & Shrubs Indig. Jap.*, ed. 2, 450—464, fig. 213—219. 1927; Yanagita, *Shinrin Djumoku no Chibyô Dzusetsu [Illustr. Seedlings Forest Trees]* 3: fig. 287. 1927; Heyne, *Nutt. Plant. Nederl. Ind.* 1311. 1927; Walcott, *N. Am. Wild Fls.* 3: pl. 210. 1927; H. H. Rusby, *Mem. N. Y. Bot. Gard.* 7: 339. 1927; E. D. Schulz, *Tex. Wild Fls.* 341. 1928; Quisumb. & Merr., *Philip. Journ. Sci. Bot.* 37: 195—197. 1928; Sasaki, *List Pl. Formos.* 350. 1928; R. M. Harper, *Econom. Pl. Ala.* 2: 311. 1928; Domin, *Bibl. Bot.* 22 (89): 1108—1109, fig. 179. 1928; Hottes, *Book Shrubs*, ed. 1, 147—148 & 364. 1928; Pammel & King, *Proc. Iowa Acad. Sci.* 35: 185 & 196, fig. 32. 1928; Nakai, *Bot. Mag. Tokyo* 36: 22. 1928; Urb., *Arkiv Bot.* 22A (17): 108—109. 1929; Stapf, *Icon. Bot. Ind. Lond.* 1: 525—526. 1929; Bakh., *Journ. Arnold Arb.* 10: 69—70. 1929; C. T. White, *Journ. Arnold Arb.* 10: 263. 1929; A. W. Hill, *Ind. Kew. Suppl.* 7: 36—37. 1929; H. H. Rusby, *Mem. N. Y. Bot. Gard.* 7: 339. 1929; A. B. Seymour, *Host Ind. Fungi N. Am.* 588—589. 1929; W. J. Bean, *Trees & Shrubs Hardy Brit. Isls.*, ed. 5, 1: 280. 1929; H. N. Ridl., *Kew Bull. Misc. Inf.* 1929: 260—261. 1929; Blossfeldt, *Art Forms in Nature* pl. 9a. 1929; L. H. & E. Z. Bailey, *Hortus* 111. 1930; D. Fairchild, *Explor. Pl.* 50—51. 1930; T. W. Sanders, *Encycl. Gard.*, ed. 19, 70. 1930; P. C. Standl., *Field Mus. Publ. Bot.* 3: 399. 1930; Uphof in Karst. & Schenck, *Vegetationsb.* 21 (1-2): n.p. 1930; Moldenke, *List Spec. Mold. Southeast. U.S.A.* Set 10. 1930; P. C. Standl., *Field Mus. Publ. Bot.* 10: 335. 1931; Macself, *Sanders Encycl. Gard.*, ed. 21, pr. 1, 71. 1931; P'ei, *Sinensia* 2 (4): 65—66. 1931; Schwenke, *Zytol. Untersuch. Verbenac.* 17—31 & 43, fig. 12—14. 1931; Hottes, *Book Shrubs*, ed. 2, 167—168 & 430. 1931; H. W. Harvey, *Ga. State Coll. Agr. Ext. Div. Bull.* 402, ed. 1, 34 & [38]. 1931; C. A. Gardn., *Enum. Pl. Austr. Occid.* 3: 112. 1931; Kanehira, *Bot. Mag. Tokyo*

- 95: [346]. 1931; Metcalf, Lignan Sci. Journ. 11: 406. 1932; C. T. Simpson, Fla. Wild Life 181. 1932; P'ei, Mem. Sci. Soc. China 1 (3): [Verbenac. China] 13--56, pl. 7. 1932; P. Dop, Bull. Soc. Hist. Nat. Toulouse 64: 497--513. 1932; Moldenke, Brittonia 1: 185. 1932; Kelsey, Aristocrats for the Garden 37. 1932; K. R. Boynton, N. Y. Herald Trib., editor. sect., 12, November 13. 1932; Moldenke, Bull. Torrey Bot. Club 60: 55--56. 1932; Svenson, Brooklyn Bot. Gard. Record 22: 7. 1933; Kanehira, Fl. Micrones. 456--457. 1933; H. Lund, Journ. N. Y. Bot. Gard. 34: 37. 1933; A. W. Hill, Ind. Kew. Suppl. 8: 37. 1933; Moldenke in Fedde, Repert. Spec. Nov. 33: 113 & 141--143. 1933; Vilm., Bull. Soc. Dendr. France 87: 82. 1933; J. K. Small, Man. Southeast. Fl. 1143 & 1518. 1933; Terasaki, Nippon Shokubutsu Zufu [Jap. Bot. Illustr. Album] 1593 & 1594. 1933; Grey & Hubbard, List Pl. Grow. Bot. Gard. Atkins Inst. 38 & 244. 1933; Mak., Gensyoku Yagai-Shokubutu [Nature-Col. Wild Pl.] 4: 281, 296, & 309. 1933; Bot. Sci. Select. Art. 14th ed. Encycl. Brit. 175. 1933; Crevost & Pételot, Bull. Econ. Indochine 37: 1289--1291. 1934; Elm., Leaflet. Philip. Bot. 9: 3222. 1934; E. J. Alexander, Journ. N. Y. Bot. Gard. 35: 133. 1934; Hochr., Candollea 5: 190. 1934; Junell, Symb. Bot. Upsal. 4: 81--83 & 205, fig. 127--132. 1934; J. A. Harris, Physico-chem. Prop. Plant Sap 140, 175, & 193. 1934; Masamune, Fl. & Geo. Yakus. 387. 1934; Hosokawa, Journ. Soc. Trop. Agric. Taiwan 6: 206. 1934; Moldenke, Torreya 34: 8. 1934; Moldenke, Brittonia 1: 253, 254, 260--261, 337, 396, 445, & 472 [also last cover page of reprint]. 1934; Macself, Sanders Encycl. Gard., ed. 21, pr. 2, 71. 1934; Cotton in Curtis, Bot. Mag. 157: pl. 9340. 1934; Moldenke, Outline Course Syst. Bot. 62. 1934; Rehd., Journ. Arnold Arb. 15: 320--324. 1934; Patern., Beitr. Zytol. Verbenac. 17, 18, 27--30, [55], & [56], pl. 3, fig. 22--27, & pl. 5, fig. 6--8. 1935; L. H. & E. Z. Bailey, Hortus Suppl. 670. 1935; L. H. Bailey, List Florists Handl. Verbenac. mss. 1935; E. D. Merr., Trans. Am. Philos. Soc., new ser., 24 (2): [Comm. Lour.] 35 & 332. 1935; C. A. Br., La. Conserv. Rev. 4: 35. 1935; Masamune, Trans. Nat. Hist. Soc. Formos. 25: 254. 1935; Hu, Bull. Chinese Bot. Soc. 1 (2): 95. 1935; P. Dop in Lecomte, Fl. Gén. Indo-Chine 4: 787--799. 1935; Suzuki, Trans. Nat. Hist. Soc. Formos. 25: 130. 1935; Moldenke, Bull. Torrey Bot. Club 62: [368]. 1935; Arthur & Cummins, Philip. Journ. Sci. Bot. 61: 480. 1936; Beer & Lam, Blumea 2: 221--222. 1936; Kanehira, Formos. Trees, ed. 2, 642--647, fig. 599--604. 1936; Macself, Sanders Encycl. Gard., ed. 22, 71. 1936; Moldenke in Fedde, Repert. Spec. Nov. 39: 288--317 (1936) and 40: 38--131, 163, 166, & 196. 1936; Masamune, Short Fl. Formos. 179--180. 1936; Moldenke, Decorat. Pl. Wint. Months [1]. 1936; Thelin, Gard. Chron. Am. 41: 70. 1937; C. L. Lundell, Carnegie Inst. Wash. Publ. 478: [Veg. Peten] 47, 75, 109, 111, 113, 138, & 183. 1937; Moldenke, Chron. Bot. 3: 311. 1937; Rehd., Journ. Arnold Arb. 18: 243. 1937; Cory, Tex. Agr. Exp. Sta. Bull. 550: 88. 1937; Moldenke, Phytologia 1: 191, 192, 197, 223, 227, 232, & 234. 1937; Hottes, Book Shrubs, ed. 3, 167--168 & 430. 1937; Moldenke, Revist. Sudam. Bot. 4: 17. 1937; Moldenke, Brief Course Syst. Bot. Lect. 1: 5 (1937) and 9: 2. 1937; Moldenke in Fedde, Repert. Spec. Nov.

- 42: 235, 238, 242, & 243. 1937; Moldenke, Brief Course Syst. Bot., rev. ed., Lect. 1: 7. 1938; Moldenke, Syst. Bot. Lect. 22: [1]. 1938; H. W. Harvey, Ga. State Coll. Agr. Ext. Div. Bull. 402, ed. 2, 34. 1938; Moldenke, Cult. Pl. 35. 1938; K. V. O. Dahlgren, Svensk Bot. Tidsk. 32: 231. 1938; Macself, Sanders Encycl. Gard., ed. 21, pr. 3, 71. 1938; A. W. Hill, Ind. Kew. Suppl. 9: 45. 1938; P. C. Standl., Field Mus. Publ. Bot. 18: 999. 1938; Bullock & Marquand, Kew Bull. Misc. Inf. 1938: 399. 1938; Koidz. in Shirasawa, Icon. Essenc. Forest. Jap. 2: fig. 2488. 1938; Nakai in Shirasawa, Icon. Essenc. Forest. Jap. 2: fig. 2484. 1938; Nakai, Journ. Jap. Bot. 14: 641. 1938; Anon., N. Y. World-Teleg. 17, January 21. 1939; Fedde & Schuster in Just, Bot. Jahresber. 59 (2): 416. 1939; H. Pittier, Gen. Pl. Venez. Clav. Anal. 243. 1939; Moldenke, Lilloa 4: 317, 332, & 333. 1939; Moldenke, Annot. & Classif. List 108 & 118. 1939; Moldenke, Alph. List Common Vern. Names [1]—8, 10—31, & 33. 1939; Moldenke, Geogr. Distrib. Avicenn. 2—8, 13, 15—17, 19, 23, 28, 35, & 36. 1939; Moldenke, Brief Course Syst. Bot., ed. 2, 8, 48, & 97. 1939; Moldenke in Fedde, Repert. Spec. Nov. 46: 201. 1939; Moldenke, Prelim. Alph. List Invalid Names 2, 3, 5, 8—14, 23, 26, 28, 29, 32, 36, 37, 40, 43, & 49. 1940; Gates, Fl. Kans. 190. 1940; Robledo, Lecc. Bot. 2: 497 & 498. 1940; L. A. Taylor, Pl. Used as Curatives 52—53. 1940; Moldenke, Suppl. List Common Vern. Names [1]—12, 14, 15, & 17—24. 1940; Moldenke, Carnegie Inst. Wash. Publ. 522: 149 & 197—200. 1940; Rehd., Man. Cult. Trees, ed. 2, pr. 1, 803—804 & 932. 1940; Masamune, Trans. Nat. Hist. Soc. Formos. 30: 63—64. 1940; Doi, Journ. Jap. Bot. 16: 382. 1940; Tuyama, Journ. Jap. Bot. 16: 376. 1940; Doney, Brooklyn Bot. Gard. Record 30: 23. 1941; Geiser, Field & Lab. 9: 44. 1941; Worsdell, Ind. Lond. Suppl. 1: 160. 1941; Biswas, Ind. Forest Rec. Bot., new ser., 3: 41. 1941; Moldenke, Suppl. List Invalid Names 1, 2, & 11. 1941; Moldenke, Phytologia 1: 497. 1941; Moldenke, Darwiniana 5: 166. 1941; W. H. Harvey, Univ. Ga. Agric. Ext. Serv. Bull. 402, ed. 3, 20 & 29—31. 1941; Masamune & Yanagihara, Trans. Nat. Hist. Soc. Formos. 31: 323. 1941; Hottes, Book Shrubs, ed. 4, 167—168 & 430. 1942; Anon., N. Y. Herald Trib. October 25. 1942; Journ. N. Y. Bot. Gard. 43: 36 & 42. 1942; Lam & Meeuse, Blumea 5: 235. 1942; Moldenke, Known Geogr. Distrib. Verbenac., ed. 1, 3—7, 9—12, 16, 19—27, 30, 31, 34, 40, 53—71, 76, 80, 86, & 87. 1942; Macself, Sanders Encycl. Gard., ed. 21, pr. 4, 71. 1942; Moldenke, Alph. List Invalid Names 2, 4, 7—11, 22, 24, 25, 27, 33, 36, 37, 41, 44, & 51. 1942; Moldenke in Lundell, Fl. Tex. 3 (1): 14 & 77—80. 1942; Kanehira & Hatusima, Bot. Mag. Tokyo 56: 113. 1942; F. E. Egler, Check List Ferns & Flow. Pl. 50. 1942; C. L. Lundell, Contrib. Univ. Mich. Herb. 8: 60 & 89. 1942; Van Melle, Journ. N. Y. Bot. Gard. 43: 36 & 42. 1942; Van Dersal, Ornament. Am. Shrubs 50, 259, & 260. 1942; Wisler, Swarthmore Pl. Notes 1: 217. 1942—1943; R. McVaugh, Ecol. Monog. 13: 130, 135, & 159. 1943; J. H. Davis, Fla. Geol. Surv. Bull. 25: 100 & 170. 1943; Van Melle, Shrubs & Trees Small Place 55, 73, & 262. 1943; Drayton, Carol. Florist 15. 1943; Yuncker in Lundell, Fl. Tex. 3: 139. 1943; D. Fairchild, Gard. Isls. Great

- East 84 & 229. 1943; H. F. MacMillan, *Trop. Plant. & Gard.*, ed. 5, 104. 1943; Moldenke, *Known Geogr. Distrib. Verbenac. Suppl.* 1: 1 & 4. 1943; F. C. Hoehne, *Relat. Anual Inst. Bot.* 1944: 40. 1944; Li, *Journ. Arnold Arb.* 25: 425—426. 1944; E. L. D. Seymour, *New Gard. Encycl.* 117. 1944; S. A. Cain, *Found. Pl. Geogr.* 254. 1944; Betts, *Jefferson's Gard. Book* 30, 139, 140, & 672. 1944; Murrill, *Guide Fla. Pl.* 19 & 21. 1945; Roig y Mesa, *Plant. Medic.* 775. 1945; Darlington & Janaki Ammal, *Chromosome Atl.* 271. 1945; Moldenke, *Bot. Gaz.* 106: 158—160. 1945; Lam & Meeuse in *Holthuis & Lam, Blumea* 5: 235. 1945; Moldenke, *Am. Midl. Nat.* 32: 575. 1945; Moldenke, *Bot. Travel & Egypt. Books* [1]. 1945; Macself, *Sanders Encycl. Gard.*, ed. 21, pr. 5, 71. 1945; Moldenke, *Castanea* 10: 36 & 37. 1945; Moldenke, *Am. Journ. Bot.* 32: 609—612. 1945; Moldenke, *Phytologia* 2: 66—70, 72—74, 78, 82, 83, 85, 88, 93—95, & 124 (1945) and 2: 154—155. 1946; Macself, *Sanders Encycl. Gard.*, ed. 21, pr. 6, 71. 1946; Moldenke, *Am. Midl. Nat.* 35: 377. 1946; B. P. Reko, *Bol. Soc. Bot. Mex.* 4: 35. 1946; G. L. Fisher, *Am. Bot. Exchange List.* 1946; Razi, *Journ. Mysore Univ.* 7 (4): 63. 1946; A. C. Martin, *Am. Midl. Nat.* 36: 608—609, pl. 50. 1946; E. D. Merr., *Chron. Bot.* 10: 210. 1946; H. St. John, *Bull. Torrey Bot. Club* 73: 588. 1946; Moldenke, *Alph. List Cit.* 1: 3—11, 13—15, 17—25, 27, 29—34, 36—39, 41, 43, 45—48, 50—52, 54—56, 58—61, 63—66, 71, 75—77, 79, 81, 89—92, 94, 97—104, 107—109, 112—114, 116—120, 123—125, 128—130, 133, 135—141, 143, 144, 147, 148, 153, 157—162, 166, 169, 170, 174—179, 181, 183—188, 190, 192—195, 197—200, 202—205, 207—211, 216, 217, 220, 221, 224—229, 231, 232, 234, 235, 239, 240, 242, 243, 245—249, 253—262, 265—278, 280—286, 288, 291—299, 301—316, & 318—320. 1946; Falcão, *Guia Visitant. Jard. Bot. Rio de Jan.* 42. 1947; K. W. Hunt, *Am. Midl. Nat.* 37: 689 & 747. 1947; N. R. Sm., *N. Y. Times* 22x, November 9. 1947; Tatnall, *Fl. Del.* 217. 1947; Wertsner, *Through Gard. Gate* 2 (5). 1947; P'ei, *Bot. Bull. Acad. Sin.* 1: 3—4. 1947; Van Melle, *Phytologia* 2: 255. 1947; Rehd., *Man. Cult. Trees*, ed. 2, pr. 2, 803—804 & 932. 1947; Moldenke, *Brief Course Elem. Syst. Bot.* 9, 53, & 93. 1947; Moldenke, *Alph. List Invalid Names Suppl.* 1: 3, 4, 11, 20, 28, & 30. 1947; Moldenke, *Bol. Soc. Venez. Cienc. Nat.* 11: 37, 39, 41, 42, & 49—51. 1947; Moldenke, *Phytologia* 2: 255, 310, 326, 327, 334, 342—346, & 387 (1947) and 2: 479, 483, & 506. 1948; Moldenke, *Notice Phyt. Subscr.* [2]. 1948; Moldenke, *Wrightia* 1: 245. 1948; Moldenke, *Castanea* 13: 114, 120, & 121. 1948; H. N. & A. L. Moldenke, *Pl. Life* 2: 18, 20, 21, 23, 24, 28, 32, 50—53, 55—58, 61—65, 67—72, 74, 76—79, 81, 83, & 88—90. 1948; Hara, *Enum. Sperm. Jap.* 1: 182—185. 1948; Erickson, *Auk* 65: 577. 1948; H. St. John, *Pacific Sci.* 2: 273. 1948; Neal, *In Gard. Hawaii*, ed. 1, 640. 1948; N. Y. Bot. Gard. *Seed Exch. List* 1948: 2. 1948; Moldenke, *Alph. List Cit.* 2: 327, 329—331, 333—337, 339, 340, 342—344, 347, 349—351, 354—356, 358, 359, 389—395, 397—411, 414—416, 418, 420—429, 432—437, 443, 447—452, 454—459, 462, 463, 467, 469, 470, 472—474, 477, 478, 480—482, 484, 486—491, 493—495, 499, 503, 504, 506—509, 512—514, 518—522, 524—531, 534, 536, 543—545, 548—550, 554, 556—570, 572—574, 576, 577, 579—581, 583—

585, 588, 592, 594, 598, 601—609, 614—619, 621, 625, 626, 631, 634, 639, 640, & 642—652 (1948), 3: 655—660, 663—666, 673, 674, 676—680, 682, 683, 695—700, 702, 706, 708, 709, 712—714, 717—732, 736—738, 740—744, 747, 749—765, 767—771, 773—776, 778—780, 782—795, 797—802, 805—807, 809—811, 813, 816—820, 822, 823, 825, 827—829, 831—835, 837, 840—842, 844, 847, 848, 850—857, 859, 867—869, 877, 878, 880—882, 884, 886, 888, 889, 891, 894, 895, 899—901, 903, 904, 907, 911, 914—919, 924—932, 934, 936—939, 941—944, 946—948, 951, 952, 957—960, 962—965, 969—974, & 978 (1949), and 4: 979, 980, 982—989, 991—994, 997—1006, 1010—1014, 1016—1020, 1022—1043, 1046—1048, 1052—1055, 1057, 1058, 1060—1062, 1064—1067, 1069—1071, 1077—1082, 1084—1086, 1094—1096, 1100, 1102—1105, 1107, 1109—1111, 1114, 1115, 1117—1120, 1122, 1126, 1128, 1129, 1131, 1133, 1135, 1136, 1138, 1139, 1142—1151, 1153, 1155, 1157, 1158, 1161, 1162, 1166, 1168—1171, 1173, 1176—1181, 1188, 1191, 1192, 1198—1202, 1204—1209, 1212, 1214, 1216—1218, 1220, 1224, 1226—1228, 1230—1232, 1234—1243, 1245, 1246, 1248, 1251—1255, 1259, 1260, 1283, 1288, 1289, 1291—1293, 1296—1299, & 1303. 1949; J. L. Hoffm., *The South* 25, 91, & 97. 1949; E. D. Merr., *Ind. Raf.* 204. 1949; Van Steenis, *Act. Hort. Berg.* 15 (2): 42. 1949; R. F. Thorne, *Castanea* 14: 91. 1949; Berger, *Determinat. Houts. Mal. Fam.* 59 & 72. 1949; Rehd., *Bibl. Cult. Pl.* 583—584. 1949; Jaques, *Pl. Fam.*, ed. 2, 148, fig. 453. 1949; Matsum., *List Seed Exch.* 2. 1949; Hara, *Enum. Spermat. Jap.* 1: 185. 1949; Hatusima, *Journ. Jap. Bot.* 24: 81. 1949; Moldenke, *Known Geogr. Distrib. Verbenac.*, ed. 2, 5—11, 14, 17, 18, 20—22, 28, 34, 36, 37, 39—43, 45—47, 49, 50, 58, 59, 62, 71, 96, 123—125, 128—131, 133—148, 150, 152, 155, 157—159, 176—178, & 214. 1949; Moldenke, *Phytologia* 3: 72, 78, 109—110, 131, & 138—140 (1949) and 3: 284, 286, 293—296, 304, 306, 375, & 380. 1950; H. N. & A. L. Moldenke, *Anal. Inst. Biol. Mex.* 20: 3—4. 1950; Moldenke, *Bol. Soc. Venez. Cienc. Nat.* 11: 291. 1950; Westcott, *Pl. Disease Handb.* 451. 1950; Sprague, *Chron. Bot.* 12: 77 & 85. 1950; Anon., *N. Y. Times Spring Gard. Sect.* 42, March 19. 1950; Fern. in A. Gray, *Man. Bot.*, ed. 8, 1212 & 1590. 1950; Razi, *Ecology* 31: 284. 1950; Moldenke, *Revist. Sudam. Bot.* 8: 169, 171, & 172. 1950; Moldenke, *Lloydia* 13: 205. 1950; T. H. Everett, *N. Y. Bot. Gard. Seed Exch. List* 1951: [1] & 5. 1950; McEacharn, *List Seeds Villa Taranta Gard.* 8: 8. 1950; G. T. Moore, *Bull. Mo. Bot. Gard.* 38: 22—23. 1950; Matuda, *Am. Midl. Nat.* 44: 575. 1950; W. J. Bean, *Trees & Shrubs Hardy Brit. Isls.*, ed. 7, 1: 333—334. 1950; Moldenke, *Bull. Torrey Bot. Club* 77: 391—392. 1950; Razi, *Journ. Mysore Univ.* 10 (6): 54 (1950) and 11 (1): 15. 1950; Heine in Fedde, *Repert. Spec. Nov.* 54: 246. 1951; Moldenke, *Inform. Mold. Set* 46 Spec. 2. 1951; Moldenke, *Biol. Abstr.* 25: 3050. 1951; N. Y. Bot. Gard. Seed Exch. List 1952: 2 & 5. 1951; Keever, Oosting, & Anderson, *Bull. Torrey Bot. Club* 78: 409 & 420. 1951; Chapput, *N. Y. Herald Trib.*, sect. 4, 17, September 16, 1951; Mak., *Ill. Fl. Jap.*, rev. ed. 1951; Chang, *Acta Phytotax. Sin.* 1: 275—306. 1951; Bravo Hollis & Ramirez Cantu, *Anal. Inst. Biol. Mex.* 22 (2): 421. 1951; Moldenke, *Phytologia* 3: 406—407, 449—451, 461—464, 484, 487—488, & 504 (1951) and 4: 41—43, 75—83, 87,

- 88, & 121--127. 1952; Moldenke in Gleason, New Britton & Br. Ill. Fl., pr. 1, 3: 126, 135, 137, & 138. 1952; B. C. Blackburn, Trees & Shrubs East. N. Am. 10, 103, & 329. 1952; Anon., Biol. Abstr. 26: 3446. 1952; E. H. Walker & al., Fl. Okinawa 131. 1952; Razi, Poona Univ. Journ. 1 (2): 47. 1952; Santapau, Anal. Bot. Cavanilles 11: 310. 1952; Moldenke, Biol. Abstr. 26: 643 & 1471 (1952) and 27: 984 & 3121. 1953; Roig y Mesa, Dicc. Bot. 2: 274, 389, 390, & 996. 1953; Ponce de Leon, Rev. Soc. Cub. Bot. 10: 23. 1953; J. A. Steyerma., Rhodora 55: 238. 1953; Heine, Mitteil. Botan. Staatsamm. München 6: 225. 1953; Moldenke, Phytologia 4: 191, 193, 268, 285--287, 392, 393, 450, & 451 (1953), 4: 506 (1954), and 5: 7--8, 10, 28--31, 100, & 101. 1954; Moldenke, Inform. Mold. Set 48 Spec. [2]. 1954; Moldenke, Journ. Calif. Hort. Soc. 15: 80, 81, & 85--86. 1954; W. C. Klein, Nieuw Guinea 2: 241. 1954; Laszlo & Henshaw, Science 119: 628. 1954; R. F. Thorne, Am. Midl. Nat. 52: 313. 1954; T. L. Brooks, Proc. Fla. State Hort. Soc. 67: 81--82. 1954; Menninger, 1954 Price List [8]. 1954; Anon., Biol. Abstr. 25: 4058 (1954) and 27: 3764. 1955; Santapau, Journ. Bombay Nat. Hist. Soc. 53: 27. 1955; Mizushima, Misc. Rep. Research Inst. Nat. Res. 38: 123. 1955; Hocking, Dict. Terms Pharmacog. 29, 88, & 89. 1955; Masamune, Enum. Tracheophyt. Ryukyu Isls. 7: 46. 1955; Moldenke, Biol. Abstr. 29: 2935. 1955; Moldenke, Fam. 2 Verbenac. 25. 1956; Moldenke in Cheesman, Fl. Trin. & Tobago 2 (6): 406. 1956; Moldenke, Inform. Mold. Set 51 Spec. 2. 1956; Moldenke in Angely, Cat. Estat. Gen. Bot. Fanerog. 17: 3. 1956; Moldenke in Humbert, Fl. Madag. 174: 44--48 & 265, fig. vi 1 & 2. 1956; Alain, Rev. Soc. Cub. Bot. 13: 37--38. 1956; Kasapliligil, Pl. Jordan 102. 1956; Putz, N. Y. Herald Trib. October 7, 1956; Spector, Handb. Biolog. Data 142. 1956; Alain in León & Alain, Fl. Cub. 4: 280 & 304--309, fig. 131. 1957; Anon., Biol. Abstr. 29: 3165. 1957; Menninger, 1957 Price List [2]. 1957; Van Steenis, Fl. Males. Bull. 380, 453, 529, & xxix. 1957; Monachino, Rhodora 59: 19. 1957; L. Benson, Pl. Classif. 227. 1957; Liu & Tseng, Quart. Journ. Taiwan Mus. 10: 55--56, pl. 1 & 2. 1957; Moldenke, Phytologia 5: 508--509 (1957) and 6: 176, 215, 232, & 242. 1958; Moldenke, Am. Midl. Nat. 59: 333 & 335. 1958; F. R. Fosberg, Pacific Sci. 12: 20. 1958; Anon., Biol. Abstr. 30: 3826. 1958; Shinners, Spring Fl. Dallas 328. 1958; Conde, Hist. Bot. Cuba 221. 1958; deRoos, Internat. Direct. Spec. 229. 1958; Mattoon, Pl. Buyers Guide, ed. 6, 83. 1958; Mizushima & Mori, Misc. Rep. Res. Inst. Nat. Resources 48: 77. 1958; J. & L. Bush-Brown, Am. Gard. Book, new rev. ed., 269. 1958; Nut Tree Nurseries, Spring '59 Price List. 1959; Krüssm., Handb. Laubgeh. 1: 253--255. 1959; Hara, Outline Phytogeogr. Japan 7, 34, 65, & 87. 1959; Kitamura, Fauna & Fl. Nepal 208--209. 1959; Hatu-sima, Bull. Arts & Sci. Div. Ryukyu Univ. Math. & Sci. 3: 107. 1959; T. O. Rao, Bull. Bot. Surv. India 1: 114. 1959; Razi, Rec. Bot. Surv. Ind. 18: 9. 1959; Moldenke, Résumé 8--12, 14, 18, 21--23, 25, 27, 34, 40, 41, 43, 44, 46, 47, 49, 50, 53, 54, 56, 58, 59, 64, 65, 70, 79, 82, 113, 155, 157--160, 165--168, 171--175, 177, 179, 181--183, 185--187, 189, 191--198, 200, 202--204, 208, 211, 213, 214, 229, 230, 234, 240--248, 250, 294, 295, 298, 301, 319, 336, 337, 345, 346, 354, 355, 379, 396, 399, 408, 409, 415,

- 418, 423, 424, 427, & 443--445. 1959; Subramanyan, Bull. Bot. Surv. India 1: 133. 1959; Moldenke, Résumé Suppl. 1: 2, 12, 13, 16, & 24. 1959; Moldenke, Phytologia 6: 509 (1959), 7: 27, 40, 77, & 91 (1959), and 7: 123, 244, 293, 300, & 305. 1960; Moldenke, Résumé Suppl. 2: 7. 1960; Menninger, 1960 Price List Flow. Trees [2]. 1960; Angely, Liv. Gen. Bot. Bras. 35 & 40. 1960; Moldenke, Biol. Abstr. 35: 1687--1688. 1960; Rehd., Man. Cult. Trees, ed. 2, pr. 9, 803--804 & 932. 1960; T. H. Everett, New Illustr. Encycl. Gard. 2: 295--296. 1960; Kelsey Nursery Serv., Short Guide Cat. 165: 35 (1960) and 167: 25. 1961; Jones, Rowell, & Johnston, Flow. Pl. & Ferns Tex. Coast. Bend 142. 1961; W. H. Lewis, Southw. Nat. 6 (1): 45--48. 1961; Moldenke, Biol. Abstr. 36: 4036 (1961) and 37: 1062. 1961; Moldenke, Phytologia 7: 321, 326, 382, 383, 429, 481, & 508 (1961), 8: 57 & 95 (1961), and 8: 176, 273, & 385. 1962; Hatusima, Mem. South. Indust. Sci. Inst. Kagoshima Univ. 3 (1): 31 (1962) and 3 (2): 130. 1962; Hocking, Excerpt. Bot. A.4: 592 (1962) and A.5: 44 & 45. 1962; Krusem., Fl. Males. Bull. 3: xxxviii, 684, & 861. 1962; Rahman, Curr. Sci. 31 (7): 302--303. 1962; Quarterm. & Keever, Ecol. Monog. 32: 180. 1962; Nair & Rehm., Bull. Nat. Bot. Gard. Lucknow 76: 13, 14, & 23, fig. 8 & 19. 1962; Moldenke, Biol. Abstr. 37: 1062 (1962) and 39: 614. 1962; Moldenke, Résumé Suppl. 3: 2--6, 16--24, 27, 28, & 30 (1962), 4: 1, 2, & 7--11 (1962), 5: 1, 2, & 4--6 (1962), 6: 8 (1963), and 7: 1, 2, 6, & 7. 1963; Shelford, Ecol. N. Am. 67, fig. 3a, 77, 82, & 582. 1963; Gleason & Cronquist, Man. Vasc. Pl. xxxi, xxxiv, 579, & 581--582. 1963; Hocking, Excerpt. Bot. A.6: 455 & 535. 1963; H. L. Hoffm., Castanea 28: 170. 1963; J. A. Steyerl., Fl. Mo. 1257, 1262--1264, & 1267, map 1849, pl. 303, fig. 4. 1963; Li, Wood. Pl. Taiwan 17, 816, 818--824, & 944, fig. 330. 1963; Anon., Biol. Abstr. 43 (3): B.17. 1963; Moldenke, Dansk Bot. Arkiv 23: 87. 1963; Li, Morris Arb. Bull. 14: [1] & 3--7, fig. 1--7. 1963; Van Steenis, Fl. Males. Bull. 18: 1069. 1963; Van Campo & Planchais, Pollen & Sp. Bibl. 5: 472. 1963; Moldenke, Biol. Abstr. 42: 1517. 1963; Bhatnagar, Journ. Ind. Bot. Soc. 42 (3): 374. 1963; Bush-Brown, Shrubs & Trees Home Landsc. 72 & [205]. 1963; Sharma & Mukhopadhyay, Journ. Genet. 58: 358, 359, 371, 375, 376, 379, & 384, pl. 12, fig. 49 & 50. 1963; Moldenke, Phytologia 8: 516 (1963), 9: 188 (1963), 9: 507 (1964), and 10: 506. 1964; Harkness, Phytologia 9: 434. 1964; A. L. Moldenke, Phytologia 10: 239. 1964; Langm., Select. Guide Lit. Flow. Pl. Mex. 160, 442, 515, & 1010. 1964; Lakela, Sida 1: 6. 1964; Aul, N. Y. Herald Trib. Spec. Gard. Sect. 7, April 15. 1964; Li, Biol. Abstr. 45: 2058. 1964; Anon., Biol. Abstr. 45: B.124. 1964; Balakrishnan, Bull. Bot. Surv. India 6: 81--92. 1964; Hegnauer, Chemotax. Pfl. 3: 39. 1964; H. L. Hoffm., Castanea 29: 31 & 40. 1964; Angely, Bibl. Veg. Paran. 194. 1964; R. L. Taylor, Plants Colon. Days 41, 42, & 101. 1964; Moldenke, Résumé Suppl. 8: 1 & 3 (1964), 10: 2 & 5 (1964), 11: 5 & 6 (1964), and 12: 1 & 8. 1965; Backer & Bakh., Fl. Java 2: 595 & 600--601. 1965; Anon., Ind. Sem. Stich. Konink. Rotterdam. Dierg. [6]. 1965; Neal, In Gard. Hawaii, new rev. ed., 721, 726, & 727. 1965; Santamour, Morris Arb. Bull. 16: 51--52. 1965; Moldenke, Phytologia 12: 6 (1965),

12: 509 (1966), and 13: 328, 329, 332, & 344. 1966; Moldenke, Résumé Suppl. 13: 5 & 6. 1966; Anon., Biol. Abstr. 47 (5): S.23 & S.143. 1966; G. Grimm, N. Y. Herald Trib., sect. 2, 20, February 6. 1966; G. Taylor, Ind. Kew. Suppl. 13: 21. 1966; Balakrishnan, Biolog. Abstr. 47: 4615. 1966; J. A. Clark, Card Ind. Gen. Sp. Pl. n.d.

This is a genus of about 188 species and subspecific taxa and hybrids, widely distributed in subtropical and tropical Asia and Oceanica, to a lesser extent in the Americas, a few species extending into the temperate portions of Asia and North America, south to Australia and west to the Seychelles and Madagascar; many are cultivated for their handsome fruit. The type species is C. americana L. The generic name is derived from the Greek words, καλλος, beauty, and καρπος, fruit — the first letter of the first Greek word is given erroneously as "X" in my earlier work on this genus through a printer's typographic error which I was not permitted to correct.

Bentham & Mueller (1870) refer to "a few African and American species", but I know of no species of this genus native to continental Africa. They say that "The genus is most readily distinguished from Premna by the inflorescence, and by the flowers more regular with isomerous stamens. The differences in the fruit may not be constant."

It is of interest to note how authors in the past have differed in their estimates of the size of this genus. Bentham (1876) recognized 30 species, a figure repeated by Hemsley (1881--1882) and by King & Gamble (1908). Briquet (1895) and Schneider (1911) modified this estimate to "über 30". Britton (1918) gives the number as "about 35". Nakai (1923), Wisler (1942--1943), and Li (1963) say "about 40 species". Britton & Brown (1913) increase it to "about 45", while Pei (1932) makes it "about 80 species". In my 1942 work I give the number as "about 150 species and varieties". Santamour (1965) says that the genus "contains between 40 and 142 species, depending on the authority consulted".

Although Loureiro proposed the name Porphyra in 1790 and Agardh did not propose his algal genus of the same name until 1822, the latter has unfortunately been conserved and is valid for the algal genus under the present edition of the International Rules of Botanic Nomenclature!

Referring to Hasskarl's "correction" of the spelling of the name Callicarpa to "Callicarpus", it is pointed out by Sprague (1950) that under these same present rules the name must remain feminine as originally proposed by Linnaeus.

It should be noted here that Illa Herm., included in the generic synonymy above, being a monomial, is actually also a part of the synonymy of the species Callicarpa tomentosa (L.) Murr. The Burchardia of Robert Brown, referred to above, is a genus in the Liliaceae.

Geunisia Blume is included in the synonymy of Callicarpa by Schauer (1847), Miquel (1857), Lemaire & Verschaffelt (1859), and

Bakhuizen van den Brink (1921), but I agree with Dr. Lam in regarding it as a distinct and valid genus, differing in having its gynoecium usually 5- (rarely 4-) carpellary, its stamens usually 5 in number, and its leaves usually anisophyllous. Aganon Raf. is included in the synonymy of Callicarpa by Jackson (1893) and by Bakhuizen van den Brink (1921), as well as by myself in my 1936 work on the genus, but, according to Merrill's monumental commentary on Loureiro's plants (1935), is actually not verbenaceous.

Nakai (1923) includes Anonymos baccifera verticillata, folia molli et incano, ex America etc. Pluk. in the generic synonymy of Callicarpa, but this pre-Linnean polynomial can certainly not by any stretch of the imagination be regarded as a generic name. It belongs rightfully in the synonymy only of Callicarpa americana L.

The genus Callicarpa is placed in the family Labiatae, Section Verbeneae, by Reichenbach (1827, 1828, 1833), with "Spondylococcus Mitch. non W." as a synonym. This same author regarded Porphyra Lour. as a valid and distinct genus. Dahlgren (1938) also places Callicarpa in the Labiatae.

An additional German common name for the genus as a whole, not recorded by me in my previous work, is "Schönbeere", while in English the members of the group are called "beautyberry", "beautyberries", or "beauty-berries". DeLaszlo & Henshaw (1954) quote H. A. Marshall (1922) regarding a species of this genus called "argerarger" in the Torres Straits, whose young leaves, well chewed by a woman until her body its saturated with the swallowed juice, will cause permanent sterility. Jones (1795) records the vernacular name "máshandarí".

The gynoecium morphology of the genus is discussed by Junell (1934). Roxburgh (1820) refers to the fruit as a 4-seeded "berry", with the "Embryo erect, and furnished with a perisperm". Actually, the fruit is a drupe. Razi (1950) affirms that the seed dissemination is endozoic. Rehder (1927) describes the group as "Ornamental shrubs chiefly grown for the attractive fls. and handsome frs. late in autumn; rather tender, but even if killed back, the young shoots usually flower and fruit the same season."

In the Linnean Herbarium there are three specimens preserved under genus 136, Callicarpa. The first of these is labeled "1. americana" in Linnaeus' own handwriting, plus a label of Gronovius and the notation "vera". The second specimen is labeled "2. tomentosa", with the added notation "cana ?" by J. E. Smith [according to B. D. Jackson]. The specimen is neither C. tomentosa (L.) Murr. nor C. candicans (Burm. f.) Hochr. [formerly known as C. cana L.], but is typical C. nudiflora Hook. & Arn. The third specimen is unidentified, labeled merely "3" and "Ind. or.", and is plainly C. candicans.

Cain (1944) reminds us that Callicarpa is one of the considerable number of genera listed by Asa Gray as being represented in Japan and vicinity [eastern Asia] and in eastern North America, but not in Europe or western North America.

Westcott (1950) records the fungi Meliola cookeana (black mildew) from this genus in Florida and Louisiana and Cercospora callicarpae (leaf-spot) from South Carolina to Texas. It is most probable that she refers here to C. americana L. as the host. Arthur & Cummins (1936) record the fungus Uredo callicarpae Petch from an unidentified species of Callicarpa represented by Clemens 5029.

An unidentified species of this genus from the Philippines is illustrated by Ettingshausen (1861). The Frutex ceramicus of Rumphius (1743), plate 60, is an as yet unidentified species of Callicarpa. Merrill (1917) says "This was described from material originating in Ceram and Banda and is undoubtedly a species of Callicarpa. Hasskarl, Neue Schlußsel (1866) 84, suggested that it might be Grewia inaequalis Blume, but the drawing certainly represents no Grewia, while the description seems to conform to Callicarpa. Field work is necessary in Ceram and Banda before the position of Frutex ceramicus can be definitely settled. Hasskarl .....also suggests that Perlarius alter silvestris may be a species of Callicarpa, but the description is too incomplete to warrant a definite reference of this to any particular genus." I may mention here that, as of the present writing, I know only C. longifolia Lam. from Ceram and C. pedunculata from Banda.

The Matheus 1210, distributed in some herbaria as a Callicarpa, is actually a species of Siparuna in the Monimiaceae; Clemens & Clemens 959 is Buddleia racemosa Torr. in the Loganiaceae. Wissmann 443, in the Vienna herbarium, is determined as Callicarpa on its label, but consists of only two leaves which I do not think are even verbenaceous; similarly, the MacGregor s.n. from East Island in the Louisiades is certainly not verbenaceous; Mocquerys 910 is Aegiphila martinicensis Jacq., while 1018 is A. laeta H.B.K. A sheet from Australia labeled "Burchardia umbellata R. Br." is in the Callicarpa folder in the herbarium of McGill University, but is not verbenaceous -- it represents a valid genus and species in the Liliaceae.

The Uphof (1930) reference in the bibliography above is sometimes erroneously dated "1935--1936" in literature; the Lam & Meuse (1942) reference is sometimes dated "1945" or "1946" in error; and the Hatusima (1949) reference is sometimes cited "23: 81" in error. Coulter's work on the phanerogams of western Texas (1892) is often misdated "1894", but the section on Gamopetalae was actually issued in 1892. Siebold, Jaarboek van de Koninklijke Nederlandsche Maatschappij tot Aarboediging van den Tuinbouw 1845: 71, pl. 5 & 6 is often cited in literature as "Ann. Hort. Pays-Bas pl. 5 & 6", an alternate title. The Buchoz (1783) reference is sometimes given as "pl. 43", but the plate in question is plainly labelled "xxxvi" in the New York Botanical Garden library copy. The reference "Journ. Malay. Br. Roy. Asiat. Soc. 2: 615. 1923" is

sometimes cited, but there is no such page number in the stated volume; the same is true of the "Journ. Roy. Asiat. Soc. Bengal 73 (3): 1012 & 1018. 1909".

Specimens from the herbaria of the University of California (Ca), Missouri Botanical Garden (E), Chicago Natural History Museum (F), and the United States National Museum (W), cited in my 1936 work on this genus without herbarium sheet numbers, are repeated in the present work with the proper sheet numbers added.

An alphabetic list of names applying to taxa excluded from the genus Callicarpa:

- Callicarpa acuminatissima Teijsm. & Binn. = Geunsia acuminatissima (Teijsm. & Binn.) H. J. Lam.
- Callicarpa affinis Elm. = Geunsia farinosa Blume
- Callicarpa apoënsis Elm. = Geunsia apoënsis (Elm.) Moldenke
- Callicarpa cavaleriei Lév. = Ilex sp., Ilicaceae
- Callicarpa cinerea A. Rich. = Petitia domingensis Jacq.
- Callicarpa cordifolia Ruiz & Pav. = Aegiphila cordifolia (Ruiz & Pav.) Moldenke
- Callicarpa cumingiana Schau. = Geunsia cumingiana (Schau.) Rolfe
- Callicarpa dentata Pav. = Cornutia grandifolia (Schlecht. & Cham.) Schau.
- Callicarpa dentata Sessé & Moc. = Cornutia grandifolia (Schlecht. & Cham.) Schau.
- Callicarpa discolor Willd. = Aegiphila integrifolia (Jacq.) Jacks.
- Callicarpa epiphytica Elm. = Geunsia flavida (Elm.) H. J. Lam
- Callicarpa esquirolii Lév. [Esquirol 72] = Dichroa febrifuga Lour., Hydrangeaceae
- Callicarpa esquirolii Lév. [Esquirol 754] = Caryopteris paniculata C. B. Clarke
- Callicarpa eucaudata Merr. & Quisumb. = Geunsia cumingiana (Schau.) Rolfe
- Callicarpa flavida Elm. = Geunsia flavida (Elm.) H. J. Lam
- Callicarpa globiflora Ruiz & Pav. = Aegiphila integrifolia (Jacq.) Jacks.
- Callicarpa hexandra Teijsm. & Binn. = Geunsia hexandra (Teijsm. & Binn.) Koord.
- Callicarpa hexandria Teijsm. & Binn. = Geunsia hexandra (Teijsm. & Binn.) Koord.
- Callicarpa integrifolia Jacq. = Aegiphila integrifolia (Jacq.) Jacks.
- Callicarpa lanata Lam. = Premna tomentosa Willd.
- Callicarpa leveilleana Fedde = Dichroa febrifuga Lour., Hydrangeaceae
- Callicarpa martini Lév. = Caryopteris paniculata C. B. Clarke
- Callicarpa martinii Lév. = Caryopteris paniculata C. B. Clarke
- Callicarpa mekongensis W. W. Sm. = Premna mekongensis W. W. Sm.

- Callicarpa paloensis Elm. = Geunsia paloensis (Elm.) H. J. Lam  
Callicarpa paniculata (Kurz) Clarke = Caryopteris paniculata C.  
 B. Clarke
- Callicarpa paniculata Lam. = Chilianthus arboreus (L. f.) Benth.,  
Loganiaceae
- Callicarpa pentandra Roxb. = Geunsia pentandra (Roxb.) Merr.  
Callicarpa pentandra f. farinosa (Blume) Bakh. = Geunsia farinosa  
 Blume
- Callicarpa pentandra f. floccosa Bakh. = Geunsia hexandra (Teijsm.  
 & Binn.) Koord.
- Callicarpa pentandra f. glabra Bakh. = Geunsia pentandra (Roxb.)  
 Merr.
- Callicarpa pentandra f. glabrescens Bakh. = Geunsia pentandra  
 (Roxb.) Merr.
- Callicarpa pentandra f. pubescens Bakh. = Geunsia pentandra (Roxb.)  
 Merr.
- Callicarpa pentandra var. cumingiana (Schau.) Bakh. = Geunsia  
cumingiana (Schau.) Rolfe
- Callicarpa pentandra var. cumingiana f. dentata Bakh. = Geunsia  
cumingiana var. dentata (Bakh.) Moldenke
- Callicarpa pentandra var. cumingiana f. genuina Bakh. = Geunsia  
cumingiana (Schau.) Rolfe
- Callicarpa pentandra var. cumingiana f. pentamera (H. J. Lam)  
 Bakh. = Geunsia cumingiana (Schau.) Rolfe
- Callicarpa pentandra var. cumingiana f. typica Bakh. = Geunsia  
cumingiana (Schau.) Rolfe
- Callicarpa pentandra var. paloensis (Elm.) Bakh. = Geunsia palo-  
ensis (Elm.) H. J. Lam
- Callicarpa pentandra var. paloensis f. apoensis Bakh. = Geunsia  
apoensis (Elm.) Moldenke
- Callicarpa pentandra var. paloensis f. apoensis (Elm.) Bakh. =  
Geunsia apoensis (Elm.) Moldenke
- Callicarpa pentandra var. paloensis f. celebica (Koord.) Bakh. =  
Geunsia paloensis var. celebica (Koord.) Moldenke
- Callicarpa pentandra var. paloensis f. furfuracea Bakh. = Geunsia  
furfuracea (Bakh.) Moldenke
- Callicarpa pentandra var. paloensis f. genuina Bakh. = Geunsia  
paloensis (Elm.) H. J. Lam
- Callicarpa pentandra var. paloensis f. typica Bakh. = Geunsia  
paloensis (Elm.) H. J. Lam
- Callicarpa pentandra var. pubescens Bakh. = Geunsia cumingiana  
 (Schau.) Rolfe
- Callicarpa pentandra var. repleta f. celebica (Koord.) Bakh. =  
Geunsia paloensis var. celebica (Koord.) Moldenke
- Callicarpa pentandra var. repleta f. furfuracea Bakh. = Geunsia  
furfuracea (Bakh.) Moldenke

- Callicarpa pentandra var. typica (Schau.) Bakh. = Geunsia pentandra (Roxb.) Merr.
- Callicarpa pentandra var. typica f. farinosa (Blume) Bakh. = Geunsia farinosa Blume
- Callicarpa pentandra var. typica f. flavida (Elm.) Bakh. = Geunsia flavida (Elm.) H. J. Lam
- Callicarpa pentandra var. typica f. genuina Bakh. = Geunsia pentandra (Roxb.) Merr.
- Callicarpa pentandra var. typica f. hexandra Bakh. = Geunsia hexandra (Teijsm. & Binn.) Koord.
- Callicarpa pentandra var. typica f. hexandra (Teijsm. & Binn.) Bakh. = Geunsia hexandra (Teijsm. & Binn.) Koord.
- Callicarpa pentandra var. typica f. pubescens Bakh. = Geunsia cumingiana (Schau.) Rolfe
- Callicarpa prismatica Robledo = Bouchea prismatica (L.) Kuntze
- Callicarpa reticulata Poepp. = Petitia domingensis Jacq.
- Callicarpa sorsogonensis Elm. = Geunsia paloënsis (Elm.) H. J. Lam
- Callicarpa spinosa Harshberger = Aralia spinosa L., Araliaceae
- Callicarpa subglandulosa Elm. = Geunsia pentandra (Roxb.) Merr.
- Callicarpa triloba Lour. = Cissus triloba (Lour.) Merr., Vitaceae
- Callicarpa umbellata Lour. = ? Premna sp.
- Callicarpa vastifolia Diels = Viburnum rhytidophyllum Hemsl., Caprifoliaceae
- Callicarpa velutina Presl = Siparuna velutina (Presl) Moldenke, Monimiaceae

CALLICARPA ACULEOLATA Schau. in A. DC., Prodr. 11: 642. 1847.

Emended synonymy: Callicarpa verticillata Hort. ex Moldenke in Fedde, Repert. Spec. Nov. 40: 79, in syn. 1936.

Bibliography: Schau. in A. DC., Prodr. 11: 642. 1847; Griseb., Abhandl. Königl. Gesell. Wissen. Götting. 7: 256. 1857; Jacks. in Hook. f. & Jacks., Ind. Kew. 1: 386. 1893; Briq. in Engl. & Prantl, Nat. Pflanzenfam. 4 (3a): 166. 1895; Urb., Symb. Antil. 7: 356. 1911; Moldenke in Fedde, Repert. Spec. Nov. 39: 299 (1936) and 40: 53, 73, 75, 78-82, 120, & 121. 1936; Moldenke, Geogr. Distrib. Avicenn. 7. 1939; Moldenke, Prelim. Alph. List Invalid Names 13. 1940; Moldenke, Known Geogr. Distrib. Verbenac., ed. 1, 26 & 86. 1942; Moldenke, Alph. List Invalid Names 11. 1942; Moldenke, Alph. List Cit. 1: 39 (1946), 2: 347, 421, & 432 (1948), and 3: 695. 1949; Moldenke, Known Geogr. Distrib. Verbenac., ed. 2, 47 & 176. 1949; Moldenke, Résumé 56, 247, & 443. 1959.

In all, 10 herbarium specimens, including type material of all the names involved, and 7 mounted photographs have been examined by me.

Additional citations: HISPANIOLA: Dominican Republic: Bertero 349 [Macbride photos 33931] (Dc--type, E--119244--isotype, F--969770--photo of type, Kr--photo of type, Mu--941--isotype, N--

photo of type, N--photo of type, Z--photo of type); Lavastre 1718 (N, Z).

CALLICARPA ACUMINATA H.B.K., Nov. Gen. & Sp. Pl. 2: 252. 1818  
[not C. acuminata Roxb., 1814, hyponym].

Additional & emended synonymy: Callicarpa subintegerrima H.B.K., Nov. Gen. & Sp. Pl. 2: 252--253. 1818. Callicarpa acuminata Humb. & Bonpl. apud Steud., Nom. Bot., ed. 1, 137. 1821. Callicarpa subintegerrima Humb. & Bonpl. apud Steud., Nom. Bot., ed. 1, 137. 1821. Callicarpa acuminata Humb. apud Spreng. in L., Syst. Veg., ed. 16, 1: 420. 1825. Callicarpa subintegerrima Humb. apud Spreng. in L., Syst. Veg., ed. 16, 1: 420. 1825. Callicarpa bonplandiana Schult., Mant. 3: 50--51. 1827. Callicarpa acuminata Humb. & Kunth apud D. Dietr., Syn. Pl. 1: 428. 1839. Callicarpa mollis Req. ex D. Dietr., Syn. Pl. 1: 428. 1839 [not C. mollis Koord., in herb., nor Matsumura, 1922, nor Shirasawa, 1949, nor Sieb. & Zucc., 1844]. Callicarpa subintegerrima Humb. & Kunth apud D. Dietr., Syn. Pl. 1: 428. 1839. Callicarpa mollis Willd. ex Steud., Nom. Bot., ed. 2, 257, in syn. 1840. Callicarpus acuminata Humb. apud Hassk., Cat. Pl. Hort. Bot. Bogor. Alt. 136. 1844. Callicarpa acuminata Kunth apud Schau. in A. DC., Prodr. 11: 644. 1847. Callicarpa schlimii Turcz., Bull. Soc. Imp. Nat. Mosc. 36 (2): 217--218. 1863. Callicarpa acuminata H.B.K. apud Goyena, Fl. Nicarag. 2: 566, sphalm. 1911. Callicarpa minutiflora Rusby, Mem. N. Y. Bot. Gard. 7: 339. 1927. Callicarpa lancifolia Pav. ex Moldenke in Fedde, Repert. Spec. Nov. 40: 38, in syn. 1936 [not C. lancifolia Merr., 1915, nor Millsp., 1906]. Callicarpa subintegerrima Kunth ex Moldenke in Fedde, Repert. Spec. Nov. 40: 38, in syn. 1936. Aegiphila minutiflora Rusby ex Moldenke, Prelim. Alph. List Invalid Names 3, in syn. 1940. Callicarpa lancifolia Sessé & Moc. ex Moldenke, Prelim. Alph. List Invalid Names 11, in syn. 1940. Callicarpa acuminata DC., in herb. Callicarpa acuminata H.B.K., in herb.

Bibliography: Roxb., Hort. Beng. 10. 1814; H.B.K., Nov. Gen. & Sp. Pl. 2: 252--253. 1818; Steud., Nom. Bot., ed. 1, 137. 1821; Kunth, Syn. Pl. 2: 44--45. 1823; Spreng. in L., Syst. Veg., ed. 16, 1: 420. 1825; Schult., Mant. 3: 50--51. 1827; Spreng. in L., Syst. Veg., ed. 16, 5: 126. 1828; Roxb., Fl. Ind., ed. 2 [Carey], 1: 394. 1832; Kostel., Allgem. Mediz.-pharm. Fl. 3: 828. 1834; D. Dietr., Syn. Pl. 1: 428. 1839; Steud., Nom. Bot., ed. 2, 257. 1840; Hassk., Cat. Pl. Hort. Bot. Bogor. 136. 1844; Walp., Repert. 4: 126. 1845; Schau. in A. DC., Prodr. 11: 644. 1847; Rosenth., Syn. Pl. Diaph. 430. 1862; Turcz., Bull. Soc. Imp. Nat. Mosc. 32 (2): 217--218. 1863; Bocq., Adansonia 3: [Rev. Verbenac.] 192. 1863; Griseb., Cat. Pl. Cub. 216. 1866; Sauvalle, Fl. Cub. 112. 1868; W. B. Hemsl., Biol. Cent.-Am. Bot. 2: 538. 1881--1882; Kuntze, Rev. Gen. Pl. 2: 503. 1891; Sessé & Moc., Pl. Nou. Hisp. 2: 18. 1893; Jacks. in Hook. f. & Jacks., Ind. Kew. 1: 386. 1893;

Sessé & Moc., Fl. Mex., ed. 2, 17. 1894; Millsp., Field Columb. Mus. Publ. Bot. 1: 42. 1895; Briq. in Engl. & Prantl, Nat. Pflanzenfam. 4 (3a): 166. 1895; H. H. Rusby, Mem. Torrey Bot. Club 6: 106. 1896; Briq., Bull. Herb. Boiss. 4: 345. 1896; Just, Bot. Jahresber. 23 (2): 76 & 511. 1897; Goyena, Fl. Nicarag. 2: 566. 1911; Loes., Verh. Bot. Ver. Brand. 53: 81 [Abhandl. 246]. 1912; Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 22. 1921; P. C. Standl., Contrib. U. S. Nat. Herb. 23: 1253. 1924; N. L. Britton, Bull. Torrey Bot. Club 53: 463. 1926; H. H. Rusby, Mem. N. Y. Bot. Gard. 7: 339. 1927; P. C. Standl., Field Mus. Publ. Bot. 10: 335. 1931; Moldenke, Bull. Torrey Bot. Club 60: 55. 1932; Moldenke in Fedde, Repert. Spec. Nov. 39: 296, 302, & 307 (1936) and 40: 38—46, 77, 113—115, 118, 120—131, & 166. 1936; C. L. Lundell, Carnegie Inst. Wash. Publ. 478: [Veg. Petén] 47, 75, 109, 111, 113, 138, & 183. 1937; P. C. Standl., Field Mus. Publ. Bot. 18: 999. 1938; Moldenke, Alph. List Common Vern. Names 4, 13, 24—26, 31, & 33. 1939; Moldenke, Geogr. Distrib. Avicenn. 13, 15—17, 19, 23, 28, & 35. 1939; Moldenke, Suppl. List Common Vern. Names 5, 18, & 24. 1940; Moldenke, Prelim. Alph. List Invalid Names 3, 9, & 11—13. 1940; Moldenke, Carnegie Inst. Wash. Publ. 522: 198—200. 1940; Moldenke, Known Geogr. Distrib. Verbenac., ed. 1, 16, 19—23, 30, 31, 34, 40, 71, & 86. 1942; Moldenke, Alph. List Invalid Names 2 & 8—11. 1942; C. L. Lundell, Contrib. Univ. Mich. Herb. 8: 60. 1942; Moldenke, Phytologia 2: 72 & 93. 1945; Moldenke, Alph. List Cit. 1: 4, 7, 9, 29, 37, 41, 50, 58, 92, 98, 100, 104, 123, 133, 135, 148, 178, 194, 209, 210, 227—229, 231, 232, 240, 243, 262, 266, 273, 293, 299, 301, 307, 309, 312, 313, 315, 318, & 320. 1946; Moldenke, Phytologia 2: 334. 1947; H. N. & A. L. Moldenke, Pl. Life 2: 51 & 81. 1948; Moldenke, Alph. List Cit. 2: 329—331, 333—336, 339, 340, 342—344, 349—351, 389, 390, 418, 421, 423, 424, 426—429, 435, 437, 457, 459, 475, 477, 480, 490, 494, 503, 507, 526, 529, 549, 557, 566, 569, 573, 603, 607, 616, 625, 639, 642, & 643 (1948), 3: 656, 659, 664, 676, 677, 679, 696, 709, 714, 730, 740, 755, 757, 758, 768, 779, 785—787, 805, 806, 816—820, 834, 835, 842, 884, 886, 895, 900, 901, 903, 907, 918, 919, 925, 948, 959, 960, 962, 964, 965, 970, 973, & 974 (1949), and 4: 982, 988, 993, 999—1001, 1005, 1006, 1013, 1020, 1022, 1025, 1026, 1028, 1031, 1036, 1038, 1040—1042, 1048, 1052, 1053, 1055, 1057, 1058, 1061, 1065, 1067, 1069, 1070, 1077, 1078, 1082, 1094, 1097, 1131, 1138, 1142, 1151, 1171, 1236, 1239—1241, 1245, & 1291. 1949; Moldenke, Known Geogr. Distrib. Verbenac., ed. 2, 28, 34, 36, 37, 39—41, 58, 59, 62, 71, 96, 156, & 176. 1949; Matuda, Am. Midl. Nat. 44: 575. 1950; Moldenke, Bol. Soc. Venez. Cienc. Nat. 11: 291. 1950; Moldenke, Phytologia 3: 375. 1950; Bravo Hollis & Ramírez Cantú, Anal. Inst. Biol. Mex. 22: 421. 1951; Roig y Mesa, Dicc. Bot. 2: 996. 1953; Moldenke, Phytologia 4: 451. 1953; Moldenke, Résumé 34, 41, 43, 44, 46, 47, 49, 64, 65, 70, 79, 82, 113, 213, 230, 241, 244, 245, 247, & 443. 1959; Moldenke, Résumé Suppl. 5: 5. 1962; J. A. Clark, Card Ind. Gen. Sp. Pl. n.d.

Recent collectors describe this species as a woody shrub, 1—20 feet tall, wide-spreading, scrambling, or even scandent, or a

small, slender, or bushy tree, 4--10 m. tall, the trunk  $3/4$  to 3 inches in diameter, the bark tan-colored, the wood white, with a large pith, the young growth dusty-pubescent, the leaves membranous, dull-green or rich grass- to pale-green above, paler or grayish beneath, rugose, the inflorescence showy or rather showy, the flowers very small and fragrant, the calyx pale-green, the stamens yellow, and the fruit at first green, then red or reddish-violet, finally dark-purple, blue-black, or black when ripe, in dense clusters. Steyermark refers to the fruit as "berries", but they are drupes. The corolla is described as "whitish" on Martínez-Calderón 195, "creamy-white" on R. McVaugh 10489 and Ll. Williams 9814, "lilac and yellow" on Klug 3879, "violet and yellow" on Klug 4114, and "white" on P. H. Allen 2488 & 5284, Bequaert 26, Breedlove 6488, Cooper 220, Cuatrecasas 9462, Haught 2427 & 4868, R. M. King 3354, Leavenworth 226, Lundell & Lundell 7108, 7519, 7810, & 16402, Steere 1004, Steyermark 56771, and Yuncker 4883. Bequaert 26 is very densely pubescent and may possibly represent C. pringlei Briq.

Common and vernacular names recorded for C. acuminata are "albocar", "aurora", "axin", "blackberry", "Bonpland's Wirbelbeere", "ceniciento", "filigrana de pifia", "flor de chichalague", "fructa de chacha", "patzahumacachil", "pukil", "pukin", "sac pukim", "uva", "uvilla", "vara de alcalde", "vara del alcalde", "x puc yim", and "zacpukim". It should be noted that Roig y Mesa is authority for the name "filigrana de pifia" in Cuba, which he refers to Callicarpa acuminata Roxb. It is most probable that he is referring here to C. americana L. or to C. roigii Britton, both of which are found in Pinar del Río, while the true C. acuminata is unknown from the island. The name C. acuminata Roxb. belongs in the synonymy of C. nudiflora Hook. & Arn., an Old World species.

The type of C. subintegerrima was probably collected somewhere in Colombia ["crescit in Regno Novo-Granatensis?", according to Kunth's original description] and is deposited in the Bonpland Herbarium at the Muséum National d'Histoire Naturelle at Paris.

The C. americana Sessé & Moc. included by me in the synonymy of C. acuminata in my 1936 work belongs actually in the synonymy of C. pringlei Briq. instead and the discussion of this name on p. 41 of my work should be so emended. The name, C. lancifolia Merr., mentioned in the synonymy above, is a synonym of C. merrillii Moldenke, but C. lancifolia Millsp. is a valid species. The C. mollis of Koorders is actually C. caudata Maxim., that of Matsamura is C. okinawensis Nakai, that of Shirasawa is C. shirasawana Mak., while that of Siebold & Zuccarini is a valid species. Hasskarl records (1844) a "Callicarpus acuminata Hmb. Sprg." from Japan, but this is doubtless an error for Callicarpa nudiflora Hook. & Arn. (C. acuminata Roxb.).

Our plant has been found growing in forests or mountain forests, relic forests, light or tropical forests, thickets or open thickets,

old or occupied clearings, acahual, llanos, the alluvial soil in secondary matorral, secondary growth, lowland jungles, second growth on low sandy soil, tall brush, and the fringe of low forests on steep hills, along semidesert roadsides, on slopes and dry hillsides, at the edge of brush, and along village borders, at altitudes of 10 to 1800 meters, flowering from March to December, and fruiting in February, April to September, and November. R. M. King describes it as "locally abundant in open sun" in Alta Verapaz, Guatemala; Woytkowski found it "very abundant in forest" in San Martín, Peru; while McVaugh says "occasional in oak forest on limestone" in San Luis Potosí, and Crutchfield & Johnston found it growing in "thorn forest on limestone slopes, infrequent along small creek" in Tamaulipas, Mexico. Standley (1931) says of it "occasional in swamps and thickets along the coast; ranging to Panama and Mexico", while later (1938) he says "occasional in thickets of the tierra caliente, Mexico to Bolivia".

One of the specimens of Gouin s.n., cited below, has its fruit modified into pubescent galls. The Tonduz s.n. [Herb. Inst. Physico-geogr. Nat. Costaric. 14882] cited by me on p. 42 of my 1936 work as from "Province undetermined", is actually from Limón, Costa Rica. The Holton 772 from "Las Cañas", Colombia, is said by Dugand to be from Valle del Cauca. The Goudot s.n. from "Coyajena", cited on p. 43 of the 1936 work, is from Coyaima in Tolima, Colombia. One of the Thieme 5507 specimens from Santa Bárbara, Honduras, cited on p. 42 as deposited in the United States National Museum at Washington, is now in the Marie-Victorin Herbarium at the University of Montreal. The Gaumer 1688, cited on p. 42 as from Yucatán, is actually from Quintana Roo, Mexico. E. P. Killip changed the number on Cuatrecasas "9402" in the United States National Herbarium to read "9462" on specific instructions from the collector.

Material of C. acuminata has been misidentified and distributed in herbaria under the names C. pringlei Briq., C. pringlei Briq., C. subpubescens Hook. & Arn., Clibadium sp., Psychotria hebeclada DC., and Viburnum americanum Mill.

The H.B.K. reference given in the bibliography of this species is often cited as "1817", but apparently should actually be "1818". The Rusby (1896) reference is cited as "Rusby, Bolivia Memoirs VI (1896) 106" at the Instituto Miguel Lillo in Tucumán.

In all, 528 herbarium specimens of C. acuminata, including type material of almost all the names involved, and 56 mounted photographs have been examined by me.

Additional & emended citations: MEXICO: Campeche: C. L. Lundell 895 (Ca—486976, Du—222626, E—1017115, F—700524, W—1494524), 1006 (Ca—486898, Du—224768, E—1017030, F—700607, W—1587064). Chiapas: Breedlove 6286 (Ac), 6488 (Z); Gilly & Hernandez Xolocotzi 146 (Mi), 151 (Mi); Matuda 1011 (Mh, Mi, N), 3641 (F—1026375, Mh, Mh, Mi, N). Hidalgo: O. M. Clark 7405 (Ok—18723); Schnoberger 8047 (Mi). Jalisco: Mexia 1108 (Ca—350067, Du—175412, E—960376,

F--689780, Gg--154936, La, W--1317854). Nuevo León: O. M. Clark 6814 (Ok--18717); Graham & Johnston 4640 (Mi). Oaxaca: Martínez-Calderón 195 (Ca--938137, Me, Rf); Nelson 2718 (W--228713); Orcutt 5221 (E--711862); J. V. Santos 2624 (Mi); Ll. Williams 9814 (F--898110, N). Quintana Roo: G. F. Gaumer 1688 (B); Lundell & Lundell 7810 (Mi, N, Rf). San Luis Potosí: M. T. Edwards 455 (Au, Du--278627, F--915215, N), 609 (Du--276821, F--915189); G. L. Fisher 45168 (Du--349953), 45169 (Ew); Hitchcock & Stanford 6946 (W--1806795); Kenoyer 4042 (Mi), A.608 (F--1000786), A.631 (F--1000043), s.n. [Tamazunchale, 8-29-38] (Fs); W. C. Leavenworth 226 (Mi, N, Ur, Ur); LeSueur 425 (F--1003633); Lundell & Lundell 7108 (Mh, Mi, N); R. McVaugh 10489 (Mi); J. Rzedowski 7827 (Ip, Ip). Tamaulipas: Barkley, Webster, & Paxson 864 (N); V. H. Chase 7587 (F--1001717, Fs, Mi, Ur); O. M. Clark 6814 (Fl--228); Crutchfield & Johnston 5799 (Mi); Dressler 1941a (Mi); Hitchcock & Stanford 6868 (Ca--710768, Du--315601, N, Or--54912, Pl--130110, Po--266850, Se--58670, Ur); Kenoyer & Crum 3292 (Mi), 3316 (Mi); Meyer & Rogers 2487 (N); Edw. Palmer 114 (Ca--717602, E--777546, F--436173, W--463050), 174 (Ca--153287, E--118813, F--217514, W--572404), 388 (Ca--145694, E--118816, F--217702, W--572619), 495 (E--778585, F--436429, W--463406); Rutten & Rutten-Pekelharing 494 (Ut); J. Rzedowski 10345 (Mi); Wooton s.n. [Buena Vista] (Mi-photo, W--989734). Veracruz: Ervendberg 212 (D--612060, P); Fournier s.n. [Laguna de Tampico, 1838] (P); Goldman 710 (W--397080); Gouin s.n. [1867] (P, P); Liebmann 11185 (W--1315035), 11186 (W--1315036), 11301 (W--1315084); Edw. Palmer 555 (W--463440); Paray 3159 (Ip); Purpus 4437 (Ca--143278, E--119224, E--119225, F--344052, W--841833), 8870 (Ca--218881, Du--206994, Po--194632); J. V. Santos 2401 (Mi), 2651 (Mi). Yucatán: Bequaert 26 (F--710785, W--1477671), 80 (I--photo); G. F. Gaumer 684a (E--951705), 870 (E--119268, F--36673, Us, W--571806), 1688 (E--852861, F--58486, W--1267404), 24071 (E--948114, F--552075, Po--174965, W--1268166), s.n. [Buena Vista, 1899] (F--187286, Gg--160439, Us, V); Langman 3932 (W--2022085); Linden s.n. [Juillet] (P); Lundell & Lundell 7519 (Du--363000, Ld, Mi, N); Steere 1004 (E--1087224, F--668493, La), 7177 (Me); Steggerda 15b (F--890493). State undetermined: Houstoun s.n. (P); Sessé, Mociffo, Castillo, & Maldonado 517 (F--850927, Q). GUATEMALA: Alta Verapaz: R. M. King 3354 (Mi, N); Tejeda 128 (W--862087); Türckheim 8263 (E--119269, Mu--3967, W--398505, W--1323247). Chiquimula: J. A. Steyermark 31737 (F--1034965). El Petén: Aguilar Hidalgo 63 (Du--239585, E--1067855, F--712360); Contreras 2213 (Ld, S), 2705 (Ld, S), 3339 (Ld, S); C. L. Lundell 2088 (F--685323), 2344 (F--693905), 3027 (F--685956), 3635 (Mi), 3755 (F--689472, Gg--248095, Mi, S), 16402

(Ld, S). Izabal: H. Pittier 8622 (W--1013513); P. C. Standley 24399 (W--1150041). Zacapa: C. C. Deam 6300 (E--119218, Ed, F--285137, Vt, W--579609); Record & Kuylen G.130 (W--1315339, Y--10081). BRITISH HONDURAS: Chanek 198 (F--704949); Gentle 25 (F--696464), 199 (M1, N); C. L. Lundell 4760 (F--683522); Winzerling III.3 (W--1266653). HONDURAS: Atlántida: E. R. Mitchell 70 (F--580597); P. C. Standley 55185 (F--583273, W--1408711). Comayagua: J. P. Edwards P.616 (B, Ca--522750, F--688148, W--1588697). Cortés: Yuncker 4883 (Dp, E--1087012, F--749089). Santa Bárbara: Thieme 5507 (W--355042, W--1323251). BAY ISLANDS: Roatan: G. F. Gaumer 64 (Sg--16054, W--56137). COSTA RICA: Cartago: J. León 1597 [Herb. Inst. Interamer. Turrialba 596] (W--2021476), 1685 [Herb. Inst. Interamer. Turrialba 871] (W--2021491); H. Pittier 3173 (Br, Br); Standley & Valerio 46750 (W--1254834). Limón: Kuntze 1968 (F--297690); Morley 809 (Ca--756765); H. Pittier 4254 (W--1323253), s.n. [Herb. Inst. Physico-geogr. Nat. Costaric. 9741] (Br, Br, W--1323255), s.n. [Herb. Inst. Physico-geogr. Nat. Costaric. 12688] (W--1323252); J. D. Smith 6629 (W--1323249); F. L. Stevens 732 (W--1166552). Puntarenas: P. H. Allen 5284 (N); Brenes 12267 (F--855893), 12339 [218 & 818] (F--856001); Cufodontis 117 (N); Tonduz 6819 (Br, W--1323250); M. Valerio 422 (F--668656). San José: Tonduz 7479 (W--355566, W--1323248), s.n. [Herb. Inst. Physico-geogr. Nat. Costaric. 12788] (W--354272, W--358746). PANAMA: Bocas del Toro: G. P. Cooper 555 (F--579658, W--1521698, Y--12188); H. von Wedel 2666 (N). Canal Zone: Piper 5457 (W--1166031, W--1166032). Coclé: P. H. Allen 2488 (N). Colón: G. P. Cooper 220 (Ca--549869, F--765683, H--38652, N), 220a (F--765684, N), 654 (F--579218, W--1521215, Y--12287). Panamá: H. Pittier 5520 (W--715771). PEARL ISLANDS: San José: C. O. Erlanson 5 (N). COLOMBIA: Antioquia: Brahe, Araque Molina, & Barkley 18C704 (N); Haught 4868 (W--1709525); Toro Toro 1293 (Fn--1666). Cauca: Triana 3712 [1; 186] (Jc). Cundinamarca: Mutis 4707 (Cb, F--712886, W--1561452). Norte de Santander: Schlim 719 (B--photo, Br, S--photo, W--1628268). Tolima: Bonpland 1694 [Macbride photos 39492] (F--1038391--photo of type & isotype, Kr--photo of type & isotype, N--photo of type, N--photo of type & isotype, P--isotype, S--photo of type, Z--photo of type), s.n. [Quindiu] (P); Cuatrecasas 9462 ["9402"] (W--1850801); Hartweg 1315 (Lu); Haught 2427 (N). Valle del Cauca: Cuatrecasas 22883 (F--1341700); F. C. Lehmann 7703 (F--578235, W--938508), K.286 (F--578236). Department undetermined: Bonpland s.n. (E--photo, N--photo, P, P, Z--photo); Linden 1196 (Br). VENEZUELA: Lará: Badillo 472 (Ve). Trujillo: J. A. Steyermark 56771 (N). ECUADOR: Los Ríos: Asplund 5410 (S, W--1930520). PERU: San Martín: Klug 3879 (E--1104815, F--766387, Gg--248620, I, N, S, W--1458287), 4114 (Ca--710140, E--1110840, F--

853163, Gg--247856, I, N, S, W--1458558); Ll. Williams 6817 (N); Woytkowski 5458 [wood voucher 15524] (W--2413474), 7283 (W--2453294). Department undetermined: Herb. Pavon s.n. [Peruvia] (X). BOLIVIA: La Paz: M. Bang 1669 (E--119256, Ed, F--77781, Mu-1730, Pa, Vu, W--56135, W--56136); M. Cárdenas 1768 (W--1232416). CULTIVATED: Austria: Herb. Hort. Schönbrunn s.n. (V); Herb. Hort. Vindob. s.n. [9/1803] (V).

CALLICARPA ACUTIDENS Schau. in A. DC., Prodr. 11: 645. 1847.

Bibliography: Schau. in A. DC., Prodr. 11: 645. 1847; Jacks. in Hook. f. & Jacks., Ind. Kew. 1: 386. 1893; P. Dop, Bull. Soc. Hist. Nat. Toulouse 64: 498--501, 505--506, & 512. 1932; Moldenke, Known Geogr. Distrib. Verbenac., ed. 1, 58 & 86 (1942) and ed. 2, 135 & 176. 1949; Moldenke, Résumé 175 & 443. 1959.

Branchlets densely grayish floccose-tomentose; leaves lanceolate-oblong, about 7.5 cm. long and 4 cm. wide, short-petiolate, narrowly acuminate at the apex, obtuse at the base, unequally dentate along the margins with slender, straight, very acute teeth about 2 mm. long, glabrate and shiny above, pale and glandular-punctate beneath, densely grayish floccose-tomentose on the veins; cymes lax, corymbose, pedunculate, much shorter than the subtending leaves.

The type of this poorly known species was collected by Charles Gaudichaud-Beaupré in Cochinchina and is deposited in the DeCandolle Herbarium at the Conservatoire et Jardin Botaniques at Geneva. Schauer states that a duplicate of the type is deposited in the Kunth herbarium (Berlin), but admits that the species is based on imperfect specimens. He claims that the teeth on the leaf-margins render the species very distinct.

Dop (1932) cites Eberhardt 2621 and Gaudichaud 125 [probably the type] from Annam, Indochina, and comments: "Cette espèce est voisine du C. macrophylla Vahl. En particulier la présence sur les deux faces de la feuille de poils étoilés rapproche nettement les deux espèces. Dans la revision Bakhuizen van der Brink C. acutidens tombe au rang de synonyme de C. cuspidata Roxb. Or celle dernière espèce est définie par cet auteur comme ayant des poils simples à la face supérieure des feuilles. C'est même ce caractère qui lui permet dans sa clé de séparer C. cuspidata de C. macrophylla. Il y a là une erreur évidente C. acutidens ne peut être réduit au C. cuspidata, mais placé à côté de C. macrophylla, dont la dimension des feuilles et leur découpe marginale la séparent nettement. Il est à remarquer que dans la forme littorale de Tourane, la feuille est un peu plus épaisse et le tomentum plus abondant que dans la forme de Thua Lun; mais dans les deux cas, le caractère du trichome est constant."

The species is known to me only from the literature.

CALLICARPA ACUTIFOLIA Chang, Acta Phytotax. Sin. 1: 284. 1951.

Bibliography: Chang, Acta Phytotax. Sin. 1: 284. 1951; G. Taylor, Ind. Kew. Suppl. 13: 21. 1966.

Nothing is known to me about this taxon except that it is supposed to be native to Kwangtung, China. The original publication has not as yet been available to me for consultation.

*CALLICARPA ALBIDO-TOMENTELLA* Merr., Philip. Journ. Sci. Bot. 12: 300--301. 1917.

Bibliography: E. D. Merr., Philip. Journ. Sci. Bot. 12: 300--301. 1917; E. D. Merr., Enum. Philip. Pl. 382. 1923; A. W. Hill, Ind. Kew. Suppl. 6: 34. 1926; Moldenke, Known Geogr. Distrib. Verbenac., ed. 1, 61 & 86 (1942) and ed. 2, 140 & 176. 1949; Moldenke, Résumé 182 & 443. 1959.

Shrub, about 2 m. tall; branches terete, grayish, glabrous; branchlets very densely and minutely grayish- or whitish-puberulent with stellate indumentum; leaves decussate-opposite; petioles 4--5 mm. long, densely stellate-puberulent; leaf-blades membranous, lanceolate, 7--11 cm. long, 1.5--2.5 cm. wide, gradually narrowed upwards to the slenderly and sharply acuminate apex, entire, narrowed below to the obtuse base, the base of some leaves slightly inequilateral, the upper surface brownish-olivaceous, glabrous, slightly shiny, the lower surface entirely covered with very dense and minute grayish or whitish puberulence, the indumentum stellate; secondaries 5 or 6 per side, slender, ascending, impressed above; veinlet reticulation loose and very obscure above, entirely obscured by the indumentum beneath; inflorescence axillary, 1.5--2 cm. long, slender, pedunculate, dichotomous, few-flowered, densely stellate-puberulent, the peduncles surpassing the primary branches in length; pedicels slender, 1--1.2 mm. long; prophylla acicular, nearly as long as the pedicels; fruiting-calyx shallow, about 2 mm. wide, densely stellate-puberulent at the base on the outer surface with very short white hair, the rim truncate or very obscurely 4-denticulate; fruit subglobose, purplish when fresh, about 2.5 mm. wide, glabrous.

The type of this little-known species was collected by Maximo Ramos [Herb. Philip. Bur. Sci. 26976] along a small stream in the forest, at an altitude of about 120 meters, on Mount Posuey, in the province of Abra, Luzon, Philippine Islands, on February 5, 1917, and was deposited in the herbarium of the Philippine Bureau of Science at Manila, but is now destroyed. Merrill (1917) states that this is "a most characteristic species, distinguished by its white or grayish-white, very short, dense indumentum, and its entire, lanceolate, membranous leaves which are entirely glabrous on the upper surface. It somewhat resembles *C. angusta* Schauer, but is not closely allied to that species." Nothing is known to me of this plant except what is given in the literature.

*CALLICARPA ALONGENSIS* Dop, Bull. Soc. Hist. Nat. Toulouse 64: 509. 1932.

Bibliography: P. Dop, Bull. Soc. Hist. Nat. Toulouse 64: 500, 501, 509, 511, & 512. 1932; A. W. Hill, Ind. Kew. Suppl. 9: 45. 1938; Moldenke, Known Geogr. Distrib. Verbenac., ed. 1, 58 & 86 (1942) and ed. 2, 135 & 176. 1949; Moldenke, Résumé 175 & 443. 1959.

Shrub; branchlets subtetragonal, lightly fulvous-pubescent;

leaves decussate-opposite; petioles 6--10 mm. long; leaf-blades chartaceous, rigid, 10--13 cm. long, 2--3 cm. wide, acute and acuminate-caudate at the apex, denticulate along the margins except at the base, attenuate and acute at the base, stellate-pubescent above when immature, but glabrous and brunneous when mature, lightly short-tomentose beneath with whitish stellate hairs; midrib prominent beneath; secondaries slender, 20--22, ascending, recurved; tertiaries subparallel; veinlet reticulation conspicuous; inflorescence cymose; peduncles 1 cm. long; cymes many-flowered, 2--2.5 cm. long, 1.5--2 cm. wide, dichotomous, fulvous stellate-pubescent; bractlets minute, subulate; flowers very small; calyx conic, 1 mm. long, stellate-tomentose, the rim truncate, very minutely 4-toothed; corolla 2 mm. long, covered on the outside with stellate and simple hairs, the tube broad, the lobes 4, rounded, 0.5 mm. long; stamens 4, long-exserted; filaments inserted at the base of the corolla-tube; anthers scarcely glandulose; style equalling the stamens; stigma infundibular; ovary stellate-pubescent and glandular; drupes black, 1 mm. wide, stellate-pubescent.

The type of this species was collected by O. Debeaux (no. 300) in rock-clefts on Surprise Island, in the Bay of Along, Tonkin, Indochina. Dop (1932) comments that "Cette espèce est voisine du C. acuta Schauer var. typica H. J. Lam des Philippines. Elle s'en distingue nettement par ses feuilles plus petites, munies à la face inférieure d'un tomentum plus fin et non farineux, et par ses fleurs de moitié plus petites. On peut la considérer comme une espèce géographique dérivée du C. acuta." The species to which he refers here is probably C. angusta Schau.

I know nothing of C. alongensis except what is given in the literature quoted above.

CALLICARPA AMERICANA L., Sp. Pl., ed. 1, 1: 111. 1753 [not C. americana Blanco, 1884, nor Hort., 1936, nor Lour., 1794, nor Sessé & Moc., 1893].

Additional & emended synonymy: Anonymos baccifera verticillata, folio molli et incano, ex America Pluk., Almagest. Bot. 33, pl. 136, fig. 3. 1696. Frutex baccifer verticillatus, foliis scabris latis dentatis et conjugatis Catesb., Carol. 2: 47. 1733. Frutex foliis amplis subrotundis acuminatis ex adverso binis, viminibus lentis infirmis, quasi levi canitie tectis Gronov., Fl. Virg. 138. 1739. Johnsonia floribus verticillatus sessilibus T. Dale ex P. Mill., Gard. Dict., ed. 7. 1759. Burchardia callicarpa Crantz, Inst. Rei Herb. 2: 360. 1766. Callicarpa fol. serratis subtus tomentosus L., Mant. 2: 33, 198, & 331. 1767. Johnsonia americana Mill., Gard. Dict., ed. 8. 1768. Frutex baccifer verticillatus, foliis scabris latis dentatis & conjugatis Catesb. apud Houtt., Lin. Pfl. Syst. 3: 101, in syn. 1778. Callicarpa foliis serratis, subtus tomentosus L. apud Houtt., Lin. Pfl. Syst. 3: 101, in syn. 1778. Anonymos baccifera verticillata, folio molli & incano, ex

America Pluk. apud Houtt., Lin. Pfl. Syst. 3: 101, in syn. 1778. Frutex foliis amplis subrotundis acuminatis ex adverso binis, viminibus lentis infirmis quasi leni canitie tectis Gronov. apud Houtt., Lin. Pfl. Syst. 3: 101, in syn. 1778. Callicarpa foliis ovatis acutis serratis, subtus subtomentosis, baccis glomeratis Lam., Encycl. Méth. Bot. 1: 563. 1783. Callicarpa foliis serratis subtus tomentosis L. apud J. A. Murr. in L., Syst. Veg., ed. 14, 153, in syn. 1784. Anonymus &c. Pluk. apud Vitm., Sum. Pl. 1: 307, in syn. 1789. Frutex &c. Catesb. apud Vitm., Sum. Pl. 1: 307, in syn. 1789. Anonymus baccifera, verticillata, folio molli, & incano Pluk. apud Lour., Fl. Cochinch., ed. 1, 1: 70, in syn. 1790. Anonymos baccifera verticillata, folio molli & incano Pluk. apud Gaertn., Fruct. & Sem. Pl. 2: 80, in syn. 1791. Frutex baccifer verticillatus foliis scabris latis dentatis & conjugatis Catesb. apud Gaertn., Fruct. & Sem. Pl. 2: 80, in syn. 1791. Anonymus baccifera, verticillata, folio molli et incano Pluk. apud Lour., Fl. Cochinch., ed. 2, 1: 88, in syn. 1793. Callicarpa serrata Moench, Meth. 468. 1794. Callicarpa viburnifolia Salisb., Prodr. Stirp. Chap. Allert. 53. 1796. Johnsonia (americana) floribus verticillatis sessilibus, foliis ovato-lanceolatis oppositis, caule fruticoso Mill. apud Willd., Linn. Sp. Pl. 1: 619, in syn. 1797. Anonymus baccifera verticillata, folio molli et incano, ex America Pluk. apud Willd., Linn. Sp. Pl. 1: 619, in syn. 1797. Frutex baccifer verticillatus, foliis scabris latis dentatis et coniugatis Catesb. apud Willd., Linn. Sp. Pl. 1: 619, in syn. 1797. Frutex foliis amplis subrotundis acuminatis ex adverso binis, viminibus lentis infirmis quasi leni canitie tectis Gronov. apud Willd., Linn. Sp. Pl. 1: 619, in syn. 1797. Callicarpa americana; foliis ovatis acuminatis inaequaliter obtuse dentatis basi cuneato-attenuatis integerrimis subtus ramulisque leviter tomentosis, calycibus nudiusculis Willd. apud Roem. & Schult., Syst. Veg. 3: 93, in syn. 1818. Callicarpa ramis pruinoso-tomentosis, foliis lato-ovalibus, utrinque acutis, dentatis subtus subtomentosis, cymis sessilibus petiolo brevioribus Michx. apud Roem. & Schult., Syst. Veg. 3: 93, in syn. 1818. Callicarpa americana Willd. ex Roxb., Fl. Ind., ed. 1 [Carey & Wall.], 1: 407, in obs. 1820. Johnsonia americana Moench ex Steud., Nom. Bot., ed. 1, 137, in syn. 1821. Anonymos baccifera etc. Pluk. apud Walp., Repert. 4: 127, in syn. 1845. Frutex baccifer verticillatus etc. Catesb. apud Walp., Repert. 4: 127, in syn. 1845. Callicarpa americana (var.) purpurea F. J. Muller, Am. Gard. 10: 463. 1889. Burchardia americana Duham. apud Jacks. in Hook. f. & Jacks., Ind. Kew. 1: 361, in syn. 1893. Callicarpa amerikana L. ex Moldenke in Fedde, Repert. Spec. Nov. 39: 304, in syn. 1936. Callicarpa villosa Baldw. ex Moldenke in Fedde, Repert. Spec. Nov.

39: 305, in syn. 1936 [not C. villosa Roxb., 1814, nor Vahl, 1794]. Callicarpa americana var. purpurea F. J. Muller apud Moldenke in Fedde, Repert. Spec. Nov. 39: 305, in syn. 1936. Callicarpa americana L. ex Moldenke, Prelim. Alph. List Invalid Names 13, in syn. 1940. Callicarpa virginiana L. ex Moldenke, Suppl. List Invalid Names 2, in syn. 1941. Callicarpus americana L. ex Moldenke, Suppl. List Invalid Names 2, in syn. 1941. Calleocarpa americana L. ex Moldenke, Suppl. List Invalid Names 1, in syn. 1941. Calicarpus americana L. ex Moldenke, Suppl. List Invalid Names 1, in syn. 1941. Callicarpa americana Roxb. ex Roig y Mesa, Plant. Medic. 775, sphalm. 1945. Callicarpa americana L., in herb. Callicarpa americana Lam., in herb.

Bibliography: Pluk., Almagest. Bot. 33, pl. 136, fig. 3. 1696; Catesb., Nat. Hist. Carol., ed. 1, 2: 47, pl. 47. 1733; J. F. Gronov., Fl. Virg., ed. 1, pr. 1, 138. 1739; L., Act. Soc. Reg. Sci. Ups. 80. 1741; J. F. Gronov., Fl. Virg., ed. 1, pr. 2, 138. 1743; J. Mitch., Nov. Act. Phys.-med. Acad. Caes. Leopold.-Carol. Nat. Cur. 8 (app.): 218. 1748; P. Mill., Gard. Dict., ed. 6, app. 75. 1752; L., Sp. Pl., ed. 1, 1: 111. 1753; L., Gen. Pl., ed. 5, 50. 1754; Catesb., Nat. Hist. Carol., ed. 2 rev. Edwards, 2: 47. 1754; Duham., Trait. Arb. & Arbust. 1: 111--112\*, pl. 44. 1755; Kniphof, Bot. Orig. Herb. Viv. 1: pl. 196 (1758) and 4: pl. 51. 1758; P. Mill., Gard. Dict., ed. 7. 1759; L., Sp. Pl., ed. 2, 1: 161. 1762; J. F. Gronov., Fl. Virg., ed. 2 (L. T. Gronov.), 19. 1762; Duham., Abhandl. Baum. Staud. & Sträuch. 1: 83--84 (1763) and 2: Verzeich. Burcardia. 1763; L., Sp. Pl., ed. 3, 1: 161. 1764; Crantz, Inst. Rei Herb. 2: 360. 1766; P. Mill., Gard. Dict., ed. 8. 1768; L., Mant. Pl., ed. 2, 2: 198. 1771; J. A. Murr. in L., Syst. Veg., ed. 13, 130. 1774; Buchoz, Hist. Nat. Reg. Vég. 6, dec. 10, pl. 5. 1775; Reichard in L., Gen. Pl., ed. 8, 56. 1778; Houtt., Lin. Pfl. Syst. 3: 101--102. 1778; Lan., Encycl. Méth. Bot. 1: 563. 1783; Buchoz, Herb. Color. Amer. pl. 36 [or 43]. 1783; J. A. Murr. in L., Syst. Veg., ed. 14, 153. 1784; H. Marsh., Arbust. Amer. 22--23. 1785; Jacq., Ind. Pl. Linn. Syst., ed. 14, 32. 1785; H. Marsh. [transl. Lézermes], Cat. Alph. Arb. & Arbris. 35--36. 1788; Schreb. in L., Gen. Pl., ed. 9, 1: 73. 1789; Vitm., Sum. Pl. 1: 307. 1789; Gaertn., Fruct. & Sem. Pl. 2: 80, pl. 94. 1791; Haenke in L., Gen. Pl., ed. 10 [8], 1: 105. 1791; J. F. Gmel. in L., Syst. Nat., ed. 13, 2: 246. 1791; Lam., Tabl. Encycl. Méth. [Illustr. Gen.] 1: 292, pl. 69, fig. 1. 1791; Lour., Fl. Cochinch., ed. 2, 1: 87--88. 1793; Vahl, Symb. Bot. 3: 12 & 14. 1794; Moench, Meth. Pl. 468. 1794; Salisb., Prodr. Stirp. Chap. Allert. 53. 1796; Murr. & Pers. in L., Syst. Veg., ed. 14 rev., 159. 1797; Willd., Linn. Sp. Pl. 1: 619--620. 1797; Mawe & Abercrombie, Univ. Gard., ed. 2. 1797; Murr. in L., Syst. Veg., ed. 15, 127. 1798; Drayton, View South-Carol. 62. 1802; Michx., Fl. Amer. Bor., ed. 1, 1 ["2"]: 95. 1803; Barton, Elem. Bot., ed. 1, 24, pl. 10, fig. 3. 1804; Pers., Syn. Pl. 1: 133. 1805; A. Mc Donald [R. W. Dickson], Comp. Dict. Pract. Gard. vol. 1. 1807; Willd., Enum. Hort. Berol. 1: 157. 1809; W. T. Ait., Hort. Kew.,

ed. 2, 1: 246—247. 1810; Poir., *Encycl. Méth. Suppl.* 2: 32. 1811; Pursh, *Fl. Amer. Sept.* 1: 96. 1814; Raf., *Fl. Ludovic.* 38—39. 1817; Roem. & Schult., *Syst. Veg.* 3: 93. 1818; H.B.K., *Nov. Gen. & Sp. Pl.* 2: 252. 1818; Sims in Curtis, *Bot. Mag.* 47: pl. 2107, in obs. 1819; Michx., *Fl. Amer. Bor.*, ed. 2, 1: 95. 1820; Roxb., *Fl. Ind.* 1: 405. 1820; Steud., *Nom. Bot.*, ed. 1, 137. 1821; Link, *Enum. Pl. Berol. Alt.* 1: 124. 1821; S. Elliott, *Sketch Bot. S. C.* 1: 199. 1821; Kunth, *Syn. Pl.* 2: 45. 1823; Spreng. in L., *Syst. Veg.*, ed. 16, 419. 1825; J. A. & J. H. Schult., *Mant.* 3: 50 & 51. 1827; Reichenb. in Mössler, *Handb. Gewächsk.*, ed. 1, 198—199. 1827; Spreng. in L., *Syst. Veg.*, ed. 16, 5: 126. 1828; Croom & Loomis, *Cat. Pl. Neighb. New Bern* 4: 1833; Nutt., *Trans. Am. Philosoph. Soc.*, new ser., 5: 185. 1834; Bachman, *Cat. Phaenog. Pl. & Ferns* 5. 1834; Kostel., *Allgem. Mediz.-pharm. Fl.* 3: 828. 1834; Barton, *Elem. Bot.*, ed. 2, 222, pl. 10, fig. 3. 1836; Hook., *Comp. Bot. Mag.* 1: 176. 1836; Croom, *Cat. Pl. Native or Natural. New Bern* 25. 1837; Endl., *Gen. Pl.* 637. 1838; Hook. & Arn., *Bot. Beechey Voy.* 305. 1838; D. Dietr., *Syn. Pl.* 1: 428. 1839; Peterm., *Cod. Bot. Linn. Ind. Alph.* 33. 1840; Steud., *Nom. Bot.*, ed. 2, 257. 1840; Audubon, *Birds of Amer.* 2: pl. 86. 1841; Pers., *Sp. Pl.* 1: 342. 1842; Walp., *Repert.* 4: 126—127. 1845; West, *Journ. Med. & Surg.*, new ser., 3 (6): 14. 1845; Jacques & Hérincq, *Man. Gén. Fl. Arb. & Arbust.* [*Fl. Jard. Europe*] 3: 502. 1845—1862; Lindl., *Veg. Kingd.* 663. 1846; Schau. in A. DC., *Prodr.* 11: 643—644. 1847; Porcher, *Med.-bot. Cat. Pl. & Ferns* 12. 1847; White, *Statist. State Ga. Suppl. Cat. Fauna & Fl.* 48. 1849; New Orleans *Med. & Surg. Journ.* 8: 757. 1852; A. Gray, *Man. Bot.*, ed. 2, 299. 1856; Oglethorpe *Med. & Surg. Journ.* 3: 174. 1860; A. W. Chapm., *Fl. South. U. S.*, ed. 1, pr. 1, 309. 1860; Rep. *Geol. Recon. Mid. & South. Counties Ark.* 2: 377. 1860; A. Wood, *Class-book Bot.* 538. 1861; Rosenthal, *Syn. Pl. Diaph.* 430. 1862; Bocq., *Adansonia* 3: [*Rev. Verbenac.*] 129 & 192. 1863; A. W. Chapm., *Fl. South. U. S.*, ed. 1, pr. 2, 309. 1865; Miq., *Ann. Mus. Bot. Lugd.-Bat.* 2: 98. 1865; Griseb., *Cat. Pl. Cub.* 216. 1866; E. Pritz., *Icon. Bot. Ind.* 1: 188. 1866; M. A. Curtis, *Geol. & Nat. Hist. Surv. N. C.* 3: 40. 1867; Sauvalle, *Fl. Cub.* 112. 1868; A. Gray, *School & Field Book Bot.*, pr. 1, 243. 1869; A. Wood, *Amer. Bot. & Flor.* 237. 1870; Featherm., *Rep. Bot. Surv. South. & Cent. La.* 99. 1871; A. W. Chapm., *Fl. South. U. S.*, ed. 1, pr. 3, 309. 1872; A. Gray, *School & Field Book Bot.*, pr. 2, 243. 1872; M. J. Young, *Famil. Less. Bot.* 407. 1873; E. Hall, *Pl. Tex.* 17. 1873; Koehler, *Pract. Bot.* 168. 1876; Benth. in Benth. & Hook. f., *Gen. Pl.* 2 (2): 1150. 1876; Ward, *Tex. Pl. Coll.* 4. 1877; A. Gray, *School & Field Book Bot.*, pr. 3, 243. 1878; C. Mohr, *Forests Ala.* [12]. 1878; A. Gray, *Syn. Fl. N. Am.* 2 (1): 340. 1878; Blanco, *Fl. Filip.*, pl. 427 bis. 1878—1880; A. Wood, *Fl. Atlant.* 237. 1879; A. Gray, *School & Field Book Bot.*, pr. 4, 243. 1879; C. Mohr, *Prelim. List Pl. Ala.* 29. 1880; P. Herderson, *Handb. Pl.* 34. 1881; A. Gray, *School & Field Book Bot.*, pr. 5, 243. 1881; Nichols., *Illustr. Dict. Gard.* 1: 242. 1884; A. W. Chapm., *Fl. South. U. S.*, ed. 2, pr. 1, 309. 1884; Wood & McCarthy, *Wilmington Fl.* 38. 1886; Maxim., *Mélang. Biol.* 12: 507 & 508. 1886; Gattinger, *Tenn. Fl.* 71. 1887; A. Gray,

School & Field Book Bot., pr. 6, 243. 1887; A. W. Chapm., Fl. South. U. S., ed. 2, pr. 2, 309. 1887; Schaffraneck, Flor. Almanac 18. 1888; F. J. Muller, Am. Gard. 10: 463. 1889; A. Wood, New Am. Bot. & Flor., ed. Willis, 237. 1889; A. W. Chapm., Fl. South. U. S., ed. 2, pr. 3, 309. 1889; P. Henderson, Handb. Pl. & Gen. Hort., new ed., 64. 1890; N. E. Br. in Johnson, Gard. Dict. 157. 1890; A. Gray, Man. Bot., ed. 6, 403. 1890; Branner & Coville, Ann. Rep. Geol. Surv. Ark. 1888 (4): 211. 1891; Featherman, Rep. Bot. Surv. South. Cent. La. 99. 1891; J. M. Coult., Contrib. U. S. Nat. Herb. 2: 330. 1892; A. W. Chapm., Fl. South. U. S., ed. 2, pr. 4, 309. 1892; Proc. Iowa Acad. Sci. 1 (3): 71. 1893; Jacks. in Hook. f. & Jacks., Ind. Kew. 1: 386. 1893; Sessé & Moc., Pl. Nou. Hisp. 2: 18. 1893; Bois, Dict. Hort. 232. 1893—1899; Sessé & Moc., Fl. Mex., ed. 2, 17. 1894; Briq. in Engl. & Prantl, Nat. Pflanzenfam. 4 (3a): 166. 1895; Britton & Br., Illustr. Fl., ed. 1, 3: 73 & 74, fig. 3068. 1898; Hyams, N. Carol. Agr. Exp. Sta. Bull. 164: [Fl. N. Carol.] 332. 1899; A. S. Hitchc., Trans. Kans. Acad. Sci. 16: 147. 1899; Kearney, Contrib. U. S. Nat. Herb. 5: 317. 1900; R. M. Harper, Bull. Torrey Bot. Club 27: 420. 1900; Kearney, Science, new ser., 12: 832, 834, 835, & 840. 1900; Diels in Engl., Bot. Jahrb. 29: 548. 1900; Kearney, Contrib. U. S. Nat. Herb. 5: 379, 380, 456, & 539. 1901; Gattinger, Fl. Tenn. & Philos. Bot. 143. 1901; C. Mohr, Contrib. U. S. Nat. Herb. 6: 695. 1901; N. L. Britton, Man. Fl. North. States, ed. 1, 779. 1901; F. S. Earle, Bull. Ala. Agr. Exp. Sta. 119: 101. 1902; W. P. Wright in Cassell, Dict. Pract. Gard., ed. 1, 1: 156. 1902; J. K. Small, Fl. Southeast. U. S., ed. 1, 1015. 1903; Parkhurst, Trees Shrubs & Vines 273. 1903; Peet, Trees & Shrubs Prosp. Park 4. 1903; N. L. Britton, Man. Fl. North. States, ed. 2, 779. 1905; R. M. Harper, Ann. N. Y. Acad. Sci. 17 (1): 99, 103, 111, 169, & 332. 1906; Baerecke, Analyt. Key Ferns & Flow. Pl. Fla. 115. 1906; Bailey & Mill., Cycl. Amer. Hort. 1: 217. 1906; R. M. Harper, Pl. World 9: 266 & 267. 1906; Bray, Univ. Tex. Bull. 82, Scient. Ser. 10: 68. 1906; W. P. Wright in Cassell, Dict. Pract. Gard., ed. 2, 1: 156. 1907; J. W. Blankinship in Engelm. & Gray, Ann. Rep. Mo. Bot. Gard. 18 [Pl. Lindheim. 3]: 186. 1907; Robinson & Fern. in A. Gray, New Man. Bot., ed. 7, 690 & 891, fig. 883. 1908; M. A. Day, Check List 128. 1908; P. Henderson, Handb. Pl. & Gen. Hort., new ed., 65. 1910; Apgar, Ornament. Shrubs U. S. 289—290, fig. 503 & 504. 1910; C. K. Schneid., Illustr. Handb. Laubholzk. 591—592. 1911; Harshberger, Phytogeogr. Surv. N. Am. 227, 431, 433, 487, 508, & 700. 1911; Coaker, Pl. Life Hartsville 31, 34, & 100. 1912; Jacks., Proc. Linn. Soc. Lond. 124, Suppl. 49. 1912; J. Matsumura, Ind. Pl. Jap. 2: 528—529. 1912; J. K. Small, Fl. Southeast. U. S., ed. 2, 1015. 1913; Britton & Br., Illustr. Fl., ed. 2, 3: 99, fig. 3563. 1913; J. K. Small, Fl. Miami 161. 1913; J. K. Small, Shrubs Fla. 117. 1913; Hickel, Bull. Soc. Dendrol. France 28: 110—111, fig. 45e. 1913; McAtee, Proc. Biol. Soc. Wash. 26: 49. 1913; McAtee, Torreya 13: 234. 1913; Harshberger, Trans. Wagner Free Inst. Sci. Philad. 7 (3): 91, 119, & 126. 1914; R. M. Harper, Ann. Rep. Fla. State Geol. Surv. 6: [Geogr. & Veget. North. Fla.] 198, 213, 220, 245, 261, 274, 293, & 340. 1914; L. H. Bailey, Stand. Cycl. Hort. 2: 628.

- 1914; W. J. Bean, *Trees & Shrubs Hardy Brit. Isles*, ed. 1, 2: 280 & 703. 1914; F. S. Mathews, *Field Book Am. Trees* 383 & 385. 1915; R. M. Harper, *Ann. Rep. Fla. State Geol. Surv.* 7: 169, 171, 174, & 176. 1915; Pollard in Webster, *New Internat. Dict. Eng. Lang.* 312. 1917; J. K. Small, *Journ. N. Y. Bot. Gard.* 18: 99--100. 1917; Free, *Fls. Winter* 41. 1917; G. V. Nash, *Addisonia* 3: 45, pl. 103. 1918; W. Trelease, *Wint. Bot.*, ed. 1, 331. 1918; N. L. Britton, *Fl. Bermuda* 318 & 319. 1918; R. M. Harper, *Ecology* 1: 202. 1920; M. S. Young, *Univ. Tex. Bull.* 2065: [Seed Pl. Austin] 66. 1920; R. M. Harper, *Bull. Torrey Bot. Club* 47: 305 & 309. 1920; Britton & Millsp., *Bahama Fl.* 373. 1920; R. M. Harper, *Ann. Rep. Fla. State Geol. Surv.* 13: [Geogr. Cent. Fla.] 100, 106, & 116. 1921; Lowe, *Bull. Miss. State Geol. Surv.* 17: 237. 1921; E. D. Schulz, *500 Wild Fls.* 180. 1922; Olmstead, Coville, & Kelsey, *Stand. Pl. Names*, ed. 1, 61. 1924; P. C. Standl., *Contrib. U. S. Nat. Herb.* 23: 1253. 1924; W. Trelease, *Wint. Bot.*, ed. 2, 333. 1925; W. J. Bean, *Trees & Shrubs Hardy Brit. Isles*, ed. 4, 1: 280. 1925; Baker, *Fla. Wild Fls.* 192. 1926; Rehd., *Man. Cult. Trees*, ed. 1, 775 & 776. 1927; R. M. Harper, *Ann. Rep. Fla. State Geol. Surv.* 18: [Nat. Res. South. Fla.] 104 & 108. 1927; Walcott, *N. Am. Wild Fls.* 3: pl. 210. 1927; Hottes, *Book Shrubs*, ed. 1, 147. 1928; E. D. Schulz, *Tex. Wild Fls.* 341. 1928; R. M. Harper, *Econom. Bot. Ala.* 2: 311. 1928; A. B. Seymour, *Host Ind. Fungi N. Am.* 588--589. 1929; W. J. Bean, *Trees & Shrubs Hardy Brit. Isles*, ed. 5, 1: 280. 1929; Stapf, *Ind. Lond.* 1: 525. 1929; Moldenke, *List Spp. Mold. Southeast. U. S. A. Set 10.* 1930; L. H. & E. Z. Bailey, *Hortus* 111. 1930; Uphof in Karst. & Schenck, *Vegetationsbild.* 21 (1-2): n.p. 1930; Macself, *Sanders Encycl. Gard.*, ed. 21, pr. 1, 71. 1931; Hottes, *Book Shrubs*, ed. 2, 168. 1931; P'ei, *Verbenac. China* 14 & 36. 1932; P. Dop, *Bull. Soc. Hist. Nat. Toulouse* 64: 498. 1932; Grey & Hubbard, *List Pl. Atkins Inst.* 38. 1933; J. K. Small, *Man. Southeast. Fl.* 1143. 1933; Macself, *Sanders Encycl. Gard.*, ed. 21, pr. 2, 71. 1934; J. A. Harris, *Physico-chem. Prop. Pl. Sap* 140, 175, & 193. 1934; Crevost & Pételot, *Bull. Econ. Indochine* 37: 1289. 1934; E. J. Alexander, *Journ. N. Y. Bot. Gard.* 35: 133. 1934; L. H. Bailey, *List Florists Handl. Verbenac.* n.p., mss. 1935; C. A. Br., *La. Conserv. Rev.* 4: 35. 1935; T. W. Sanders, *Encycl. Gard.*, ed. 22, 71. 1936; Moldenke in Fedde, *Repert. Spec. Nov.* 39: 296--298 & 303--317 (1936) and 40: 38, 41, 77, 92, 96, 99, 109, 111, 112, & 117--131. 1936; Hottes, *Book Shrubs*, ed. 3, 168. 1937; Moldenke, *Phytologia* 1: 232. 1937; Cory, *Tex. Agr. Exp. Sta. Bull.* 550: 88. 1937; Macself, *Sanders Encycl. Gard.*, ed. 21, pr. 3, 71. 1938; Anon., *N. Y. World-Telegram* 17, January 21. 1939; Moldenke, *Alph. List Common Vern. Names* 2, 4, 7, 12, 13, 21, 28, & 31. 1939; Moldenke, *Geogr. Distrib. Avicenn.* 2--4, 13, & 35. 1939; Moldenke, *Annot. & Classif. List* 108. 1939; L. A. Taylor, *Pl. Used as Curatives* 52--53. 1940; Moldenke, *Suppl. List Common Vern. Names* 7 & 23. 1940; Moldenke, *Prelim. Alph. List Invalid Names* 9, 13, 26, & 29. 1940; Rehd., *Man. Cult. Trees*, ed. 2, pr. 1, 803, 804, & 932. 1940; Moldenke, *Carnegie Inst. Wash. Publ.* 522: 198. 1940; Moldenke, *Phytologia* 1: 497. 1941; Moldenke, *Suppl. List Invalid Names* 1 & 2. 1941; Geiser, *Field & Lab.* 9: 44. 1941.



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