

STUDIES IN THE HELIANTHEAE (ASTERACEAE). XXXII.

NEW SPECIES OF *WEDELIA* FROM BRASIL.

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Wedelia is one of the genera of the Asteraceae in Brasil most resistant to proper identification. This is partly because of the inadequate knowledge of the species that have previously been described, but it is also because of the large number of totally undescribed species. The present paper attempts partial solution of both problems. Notes are provided here regarding some of the previously described species and eleven new species are described. Concepts depend on some type fragments, type photographs, and some information from the literature.

Baker (1884) recognized that *Wedelia scandens* DC. was a synonym of *W. subvelutina* DC. A type photograph seen under the name *W. elliptica* DC. is the same plant in the type photograph of *W. vauthieri* DC. The former name never seems to have been published. *Wedelia goyazensis* Gardn. appears to be most closely related to *Zexmenia apensis* (Chod.) Hassler. *Wedelia pallida* Gardn. seems to belong in the synonymy of *W. trichostephia* DC. rather than the synonymy of *W. macrodonta* DC. where it was placed by Baker (1884). The latter appears to be the same as *Aspilia reflexa* Sch.Bip. ex Baker. If the identity is confirmed, and the generic concepts are maintained, a new combination will be necessary. Four recent collections from the vicinity of Crystallina in Goias, King 8257, 8935, 8947, 8970, show a range of variation that suggests *Wedelia oligocephala* Baker and *W. linearifolia* Baker are the same species. The name *W. oligocephala* is retained here, being more appropriate for the combined concept. Collections of *W. kerrii* N.E.Brown, including Hatschbach 46143, indicate a plant similar to *W. subvelutina* DC. in the elongated receptacles and exerted paleae of the aging heads. On the basis of a type photograph, *W. psammophila* Poepp. & Endl. is an *Eclipta*.

The new species are as follows.

WEDELIA ALMEDAE H. Robinson, sp. nov.

Plantae herbaceae perennes e xylopodiiis erectae ca. 0.5 m altae mediocriter ramosae. Caule brunnescentes teretes dense strigoso-pilosi. Folia opposita, petiolis brevibus ca. 2 mm longis; laminae oblongo-ellipticae plerumque 2.0-4.5 cm longae et 0.4-1.3 cm latae base breviter cuneatae vel leniter rotundatae margine supra basem crenato-serratae apice subacutae vel obtusae supra antrorse strigosae subtus in nervulis reticulatis hispida-

ulo-strigosae utrinque glandulo-punctatis subtus densiores, nervis subpinnatis, nervis secundariis in quartis inferioribus valdioribus et ascendentioribus. Inflorescentiae in ramis terminales unicapitatae vel dichasiiformes vel subthyrsoideae, pedunculis 0.4-3.0 cm longis dense strigoso-pilosi. Capitula late campanulata 7-9 mm alta; squamae involucri ca. 12 aliquantum regulariter biseriatae herbaceae oblongae 6-7 mm longae et 2.5-3.5 mm latae base distincte gibbosae vel protuberantes margine integrae apice obtusae et interdum breviter reflexae extus et distaliter intus strigoso-pilosulae et minute glandulo-punctatae; paleae oblongae vel oblanceolatae distaliter triangulares acutae margine superne puberulo-fimbriatae extus superne puberulae et minute glandulo-punctatae. Flores radii ca. 12 in capitulo; corollae flavae, tubis brevibus ca. 1 mm longis dense puberulis et in superficiis interioribus usque ad sinibus dense scabrido-setuliferis, limbis oblongis ca. 9 mm longis et 3.5 mm latis apice bilobatis extus dense glandulo-punctatis in nervis sparse puberulis et minute scabridulis. Flores disci ca. 40 in capitulo; corollae flavae 5.0-5.5 mm longae; tubis 1.5-1.8 mm longis glabris, faucibus 2.8-3.0 mm longis cylindraceutis base campanulatis extus glabris, lobis triangularibus ca. 0.9 mm longis et 0.6 mm latis extus plerumque superne glandulo-punctatis in sinibus fasciculato-puberulis et pauca scabrido-setuliferis intus margine et superne breviter distincte papillois; filamenta in partibus superioribus ca. 0.3 mm longa mediocriter incrassata; thecae antherarum ca. 2 mm longae; appendices antherarum ovatae ca. 0.55 mm longae et 0.33 mm latae extus glanduliferae; rami stylorum anguste lineares non glanduliferi solum distaliter puberuli apice attenuate penicillati. Achaenia leniter complanata vel triquetra late obpyramidata ca. 3.5 mm longa et 2 mm lata base late rotundata minute puberula superne densiora apice valde constricta in coronis ca. 0.3 mm longis irregulariter dentata setulifera et setulo-fimbriata non aristata. Grana pollinis in diametro 25-27 μ m.

TYPE: BRASIL: Goias: 27 km S of Alto Paraiso. Disturbed cerrado vegetation at 2900 ft. elevation. Shrub 0.5 m tall. Florets yellow; anthers black. Jan. 25, 1980. *R. M. King & F. Almeda 8300* (Holotype, UB; isotype, US).

Wedelia almedae seems closely related to *W. regis*, described below, but differs by the less strongly differentiated trinervation, the rather regularly gibbous or even pointed projections on the bases of the involucrel bracts, the corolla lobes of the disk flowers not being papillose to the base, and the more densely setuliferous surfaces near the apical sinuses of the ray corollas.

WEDELIA BAHIENSIS H. Robinson, sp. nov.

Plantae fruticosae ad 1 m altae mediocriter ramosae. Caules brunnescentes teretes striati dense hirsuto-strigosi et hispiduli superne dense strigosi. Folia opposita, petiolis 2-7 mm

longis; laminae ovatae 1.2-10.0 cm longae 0.7-5.0 cm latae base rotundatae et ad medio breviter acuminatae margine serratae vel superne subtiliter serrulatae apice breviter acutae in nervis secundariis fere ad basem distincte trinervatae vel valdius ascendentes supra strigosae et strigulosae subtus leniter pallidius plerumque in nervis et nervulis majoribus strigosae aliter minute sparse puberulae in nervis non exsculptae. Inflorescentiae terminales in ramis brevibus unicapitatae, pedunculis 1-13 cm longis dense strigosis. Capitula in involucris ca. 10 mm alta et 12 mm lata; squamae involucris ca. 8 (raro ad 10) late oblongae 9-20 mm longae et 6-7 mm latae exteriores plerumque herbaceae virides apice breviter vel longe acutae extus et margine dense strigosae perminute puberulae interiores scariosiores apice rotundatae margine dense ciliato-fimbriatae extus dense perminute scabrido-puberulae; paleae squamis involucris interioribus similes angustiores leniter obtusae. Flores radii ca. 8 raro ad 10 in capitulo; corollae flavae, tubis anguste cylindratis ca. 2.5 mm longis glabris vel apice subsinosis pauca setuliferis, limbis oblongis ca. 15 mm longis et 8 mm latis apice bilobatis subtus sparse minute puberulis in nervis scabridulis, ramis stylorum apice longe anguste appendiculatis. Flores disci ca. 30-35 in capitulo; corollae flavae 6.5-7.0 mm longae, tubis 2.0-2.2 mm longis glabris, faucibus leniter infundibularibus base leniter campanulatis 3.0-3.3 mm longis glabris in nervis leniter fibrillosis, lobis triangularibus ca. 1 mm longis et 0.8 mm latis extus dense scabridulis non glanduliferis intus margine longe fimbriate papillosis; filamenta in partibus superioribus ca. 0.35 mm longa non distincte incrassata; thecae antherarum ca. 2.5 mm longae; appendices antherarum flavae ovatae 0.7 mm longae et 0.45 mm latae extus glanduliferae; rami stylorum longe lineares extus non glanduliferi tertiis basilaribus exceptis distincte puberuli apice longe anguste appendiculatis. Achaenia leniter complanata vel triquetra obpyramidata submatura ca. 4 mm longa plerumque sericeo-setulifera apice valde constricta in coronis ca. 0.5 mm longis irregulariter denticulata, coronis pappi extus glabris margine dense setulo-fimbriatis non aristata. Grana pollinis in diametro ca. 30 μ m.

TYPE: BRASIL: Bahia: 14 km along road W from Seabra, toward Ibotirama. Elev. 2900 feet. Shrub one meter tall, flowers yellow. Feb. 3, 1981. *R. M. King & L. E. Bishop 8782* (Holotype, UB; isotype US). PARATYPES: BRASIL: Bahia: Locality as in holotype. Subshrub 1/2 meter tall, flowers yellow, may be a juvenile form of *8782*. Feb. 3, 1981. *R. M. King & L. E. Bishop 8781* (US); Bahia: Rod. BR-242, 15 km O de Seabra. Arbusto delgado, capítulos amarelos. Da Chapada. 12/10/1981. *Hatschbach 44185* (US).

The new species is related to the small group of truly typical members of the genus in eastern Brasil including *Wedelia alagoensis* Baker, *W. hookeriana* Gardn. and *W. villosa* Gardn. and one specimen was chemically reported under the name *W. hookeri-*

ana (Bohlmann et al., 1982). The new species differs from the others by heads being strictly solitary in dichotomies without adjacent axillary heads and there are no large glands covering the undersurfaces of the leaves and outer surfaces of the involucre bracts. *Wedelia hookeriana* and *W. villosa* differ further by the longer slender pubescence on the leaf undersurfaces, and *W. alagoensis* differs by the shorter outer involucre bracts.

WEDELIA BISHOPII H. Robinson, sp. nov.

Plantae herbaceae perennes e xylopodiis erectae ad 0.5 m altae pauca laxa ramosae. Caules flavi vel rufescentes teretes in sicco minute rugulosi dense hirsuti, internodiis inferioribus brevioribus. Folia opposita inferiora distincte minora, petiolis brevibus 1-3 mm longis; laminae plerumque anguste ellipticae raro lineares inferiores saepe late ellipticae 3-10 (-13) cm longae et 0.5-3.5 cm latae base anguste cuneatae vel rotundatae margine remote vel dense serratae in nervis ascendenter pinnae vel supra basem divaricate trinervatae supra dense scabropilosa subtus in nervis et nervulis prominulis scabropilosa et pilosulae raro utrinque appresse strigosae subtus interdum glandulo-punctatae. Inflorescentiae diffusae terminales et in ramis variabilis terminales solitariae plerumque approximatae, pedunculis 2.5-9.0 cm longis sensim dense hirsutis vel strigosis. Capitula late campanulata 8-9 mm (raro -13) mm alta et in involucri 10-15 (-18) mm lata; squamae involucri 10-12 oblongo-ellipticae 7-8 (-12) mm longae et 2-3 (-4) mm latae herbaceae vix patentae apice acutae extus dense canescenter pilosae vel strigosae; paleae oblongae vel oblanceolatae 6-7 (-9) mm longae et 1.5-2.0 mm latae inferne flavae glabrae apice triangulares acutae vel breviter acuminatae erectae vel leniter reflexae atrorubrescentes extus et margine superne dense scabrido-pilosulae vel strigulosae. Flores radii 6-10 in capitulo; corollae flavae, tubis 1-2 mm longis dense scabrido-pilosulis vel in partibus exterioribus glabris, limbis oblongis 5.5-8.0 mm longis et ca. 4.5 mm latis apice bilobatis extus in nervis et lobis apicalibus valde strigosis interdum glandulo-punctatis, ramis stylorum apice anguste appendiculatis. Flores disci ca. 30-40 (-50) in capitulo; corollae flavae 4.2-5.0 mm longae, tubis 1.0-1.7 mm longis glabris, faucibus 2.5-3.0 mm longis leniter infundibularibus base leniter campanulatis extus glabris, lobis triangularibus ca. 0.7 mm longis et 0.8 mm latis extus dense strigulosis non vel indistincte glanduliferis inter praeter basem dense papillois; filamenta in partibus superioribus ca. 0.3-0.4 mm longa mediocriter incrassata; thecae antherarum 1.8-2.0 mm longae; appendices antherarum flavae ovatae 0.4-0.5 mm longae et 0.35-0.40 mm latae extus plerumque glabrae interdum glanduliferae raro uni-pilosulae; rami stylorum breviter lineares supra tertiis basilaribus sensim papillois non glanduliferi. Achaenia leniter complanata vel triquetra obpyramidata vel oblonga 4.5-raro 5.5 mm longa et 2 mm lata inferne glabra superne dense scabridulo-

pilosula apice valde constricta, coronis apicalibus 0.5-1.0 mm altis breviter vel longe lobatis dense pilosulo-fimbriatis extus sparse scabridulis vel puberulis non aristatis. Grana pollinis in diametro 26-30 μm .

TYPE: BRASIL: Goiás: Luziania, saída da cidade. Erva rasteira sobre o solo, flores amarelas; serrado seco sujeito a incêndios periódicos. 25.I.1981. *E. P. Heringer 18193* (Holotype, IBGE; isotype, US). PARATYPES: BRASIL: Distrito Federal: Grota D'água próximo ao rio São Bartolomeu. Campo sujo - 15 44'S. 47 41'O. 24-03-81. *Anselmo Braga 4* (UB); Escola Fazendária. Planta rasteira de cerrado seco, porém de encosto; planta com flores amarelas em capítulos abundantes. 20/01/78. *E. P. Heringer 16792* (US); Cerrado, immediately E. of Lagoa Paranoá. Elev. 975 m. Herb with several divergent prostrate stems. Heads on ascending peduncle. Rays yellow; disc yellow-orange. 9 Dec. 1965. *H. S. Irwin, R. Souza, R. Reis dos Santos 11150* (US); Cerrado, summit of Chapada da Contagem. Elev. 1100 m. Decumbent herb with 1-several stems from deep root. 14 Jan. 1966. *Irwin et al., 11675* (US); Common. Campo, north end of Lagoa Paranoá. Elev. 975 m. Creeping herb, the stems to 50 cm long. Heads ascending; rays yellow; disc brown. 14 March 1966. *H. S. Irwin, J. W. Grear, Jr., R. Souza, R. Reis dos Santos 13944* (US); Campo and cerrado ca. 15 km E. of Lago Paranoá, DF-6. Elev. ca. 1000 m. Ascending herb to ca. 50 cm tall. 25 Feb. 1970. *H. S. Irwin, S. F. da Fonsêca, R. Souza, R. Reis dos Santos, J. Ramos 26607* (US); Ecological Reserve S of Brasília. Elev. 3300 feet. Feb. 12, 1981. *R. M. King & L. E. Bishop 8926* (US); Chapada da Contagem; 13 km nordeste de balão em BR 020 por estrada, 20.5 km nordeste de torre de televisão. 24 Jan. 1980. *J. H. Kirkbride, Jr. & M. C. G. de Kirkbride 3096* (US); 3110 (US); Na margem de brejo e campo cerrado. Ao Córrego Cariru, ca 47°47'O. 15°52'S. 1000 m. alt. 6 Feb. 1981. *J. H. Kirkbride 3753* (UB); 4 km oeste do Rio Preto perto de DF 6, 47°22'O, 15°43'S. 12 Feb. 1981. *J. H. Kirkbride 3792* (US); Cerrado aberto e perturbado. Na região de Barra Alta, este do Córrego São Gonçalves, 15°48'S, 47°31'O. 950 m alt. 19 Feb. 1981. *J. H. Kirkbride 3902* (US); Córrego Santo Antonio do Descoberto. 17° 30'S, 48°15'W. Alt. 1050 m. 2/12/82. *G. F. de Oliveira 27* (US); Grota D'água - proximo ao rio São Bartolomeu. Campo sujo - 15 44'S, 47 41'O. 24-03-81. *P. Omar 3* (US); Perto da DF-20. 16°01'S, 48°12'W. Alt. 1.055 m. 22 Nov. 1982. *C. Proença 289* (US); Goiás: Cerrado ca. 12 km S. of Corumbá de Goiás. Elev. 1000 m. Common. Herb. ca. 45 cm tall. Rays and disc yellow. *H. S. Irwin, R. Souza, R. Reis dos Santos 10868* (US).

Two of the specimens represent notable variations, *Irwin 10868* from near Corumbá de Goiás is distinctly larger in all its parts and bears glands, and *Oliveira 27* differs by its linear leaves and appressed strigose pubescence. These two specimens are like the others in the inflorescence with no two heads from the same node, the densely strigose undersurface of the rays,

especially toward the tips, and the densely strigose outer surfaces of the disk corolla lobes.

WEDELIA HATSCHBACHII H. Robinson, sp. nov.

Plantae herbaceae perennes e xylopodiis erectae ca. 25-30 cm altae non vel pauce ramosae. Caules brunnescentes subhexagonales striati dense scabridi et scabriduli, internodis basilaribus brevibus superioribus 3-8 cm longis. Folia opposita subsessilia basilaria minute sub 1 cm longis et 0.6 cm latis superioribus accrescentia, petiolis ca. 1 mm longis; laminae late ellipticae 2.5-6.0 cm longae et 1.7-3.8 cm latae base late cuneatae vel leniter rotundatae margine supra mediam multo incurvate serratae apice breviter acutae obtusae fere ad basem sublongitudinaliter tri- vel quinque-nervatae supra et subtus perbreviter scabrae. Inflorescentiae terminales 1-3-capitatae, pedunculis 3-7 cm longis dense antrorse scabris. Capitula 10-13 mm alta et 13-17 mm lata (apicibus bracteorum exclusa); squamae involucri exteriores ca. 15 subcarnose herbaceae saepe late patentis lanceolatae 8-17 mm longae et 2-4 mm latae minute scabridae; bractee interiores et paleae oblongo-lanceolatae ca. 6 mm longae et 2 mm latae distaliter et in lineis medianalis minute scabridae apice anguste rotundatae. Flores radii nulli. Flores disci ca. 30-35 in capitulo; corollae flavae subcarnosae ca. 8.5 mm longae, tubis cylindraceutis ca. 2.5 mm longis glabris, faucibus longe infundibularibus ca. 4.5 mm longis base subtiliter campanulatis supra mediam in nervis minute scabridulis et sparse puberulis, lobis oblongo-ovatis ca. 1.5 mm longis et 0.9 mm latis extus dense minute scabridulis intus praeter basem in medio dense distincte papillois; filamenta in partibus superioribus ca. 0.4 mm longa incrassata; thecae antherarum ca. 4 mm longae; appendices antherarum flavae ovatae ca. 0.5 mm longae et latae extus glanduliferae; rami stylorum lineares non contorti non glanduliferi apice breviter acuti extus inferne glabri. Achaenia submatura 4 mm longa sericeo-setulifera apice plerumque biaristata in achaeniis peripheralis triaristata in coronis irregulariter laciniata, aristis ad 1.5 mm longis. Grana pollinis in diametro ca. 37 μ m.

TYPE: BRASIL: Mato Grosso: Mun. Rio Brilhante. Rod. BR-267, Entroncamento. Campo cerrado aberto. Capitulos amarelos. 22/X/1970. *G. Hatschbach 25050* (Holotype, MBM; isotype, US).

Wedelia hatschbachii is clearly a member of the genus, but is distinct from all other members by its lack of ligulate flowers. The species will be discussed further in a paper on the genus *Angelephytum*.

WEDELIA HERINGERI H. Robinson, sp. nov.

Plantae herbaceae perennes e xylopodiis? erectae ad 0.5 m altae mediocriter laxae late ramosae. Caules cinerei teretes antrorse appresse strigosi, internodis plerumque 3-6 cm longis. Folia opposita subsessilia, petiolis indistinctis ca. 1 mm longis; laminae anguste lineares plerumque 3-7 cm longae et 1.0-

1.5 mm latae margine anguste recurvatae supra in marginis et subtus in nervis primariis appresse strigosae subtus aliter minute scabridulae et dense glandulo-punctatae. Inflorescentiae in ramis terminales unicapitatae, pedunculis 6-12 cm longis superne sensim dense strigosis. Capitula 7-9 mm alta et in involucris ad 10-12 mm lata; squamae involucris ca. 10 ellipticae 7-8 mm longae et 3.0-3.5 mm latae herbaceae apice erectae breviter acutae extus cinereo-strigosae et glandulo-punctatae; paleae oblongae vel obovatae ca. 8 mm longae et 2 mm latae apice triangulares acutae et atrescentes extus superne dense appresse strigulosae et glandulo-punctatae margine superne setulo-fimbriatae. Flores radii ca. 8-10 in capitulo; corollae non visae. Flores disci ca. 25 in capitulo; corollae flavae ca. 4 mm longae, tubis ca. 1 mm longis glabris, faucibus superne subcylindraceis base leniter campanulatis ca. 2.5 mm longis extus glabris, lobis ovato-triangularibus ca. 0.6 mm longis et latis extus glandulo-punctatis et minute scabridulis extus solum basis exclusis dense papillois; filamenta in partibus superioribus ca. 0.3 mm longa leniter incrassata; thecae antherarum ca. 1.7 mm longae; appendices antherarum flavae ovatae ca. 0.4 mm longae et 0.35 mm latae extus glanduliferae; rami stylorum lineares leniter recurvati non glanduliferi e tertiis basilaribus sensim papillois apice penicillate longe papillois. Achaenia leniter complanata vel triquetra oblongo-obpyramidata ca. 6 mm longa et 1.5 mm lata inferne glabra superne scabrido-puberula apice valde constricta in coronis ca. 1 mm longis irregulariter denticulata margine setulo-fimbriata extus sparse pilosula non aristata. Grana pollinis in diametro ca. 25 μ m.

TYPE: BRASIL: Distrito Federal: Escola Fazendária. Planta de cerrado seco, aberto, um tanto volúvel, flores amarelas. 20/01/78. *E. P. Heringer 16793* (Holotype, IBGE; isotype, US).

The ray corollas of *Wedelia heringeri* have not been seen, but the peripheral triquetrous achenes are present and mature. There is no reason to doubt that rays were present in the younger plants. Available floral details are unlike any *Aspilia* but are similar to the various xylopodial members of *Wedelia* described here. The species is distinct in the very narrow leaves and in the widely spreading branching from near the base. The species seems particularly close to the annual species, *W. pertenuis*, described below.

WEDELIA KIRKBRIDEI H. Robinson, sp. nov.

Plantae herbaceae perennes e xylopodiis erectae ca. 0.5 m altae plerumque non ramosae. Caules flavi teretes vix striati glabri vel subglabri. Folia opposita, petiolis subnullis ad 1 mm longis; laminae obovatae plerumque 3-6 cm longae et 0.6-2.6 cm latae inferiores valde minores base cuneatae margine supra basem sensim crenato-serratae apice obtusae vel breviter acutae distincte supra basem ascendenter trinevatae supra et subtus glabrae vel minute puberulae. Inflorescentiae terminales

dichasialiformes vel breviter thyrsoideae, pedunculis 3-20 mm longis puberulis. Capitula late campanulata 8-10 mm alta; squamae involucri exteriores ca. 6 subcartosae herbaceae ovatae 6-8 mm longae et 3-4 mm latae margine integrae apice breviter acutae subobtusae extus sparse puberulae vel strigulosae; bractae interiores et paleae oblongo-ovatae apice triangulares acutae margine superne puberulo-fimbriatae extus superne puberulae et glandulo-punctatae. Flores radii ca. 8 in capitulo; corollae flavae, tubis brevibus ca. 0.5 mm longis glabris, limbis oblongis ca. 9 mm longis et 3 mm latis apice bilobatis extus dense glandulo-punctatis sparse minute setuliferis in sinibus interioribus dense argute setuliferis. Flores disci ca. 25 in capitulo; corollae flavae ca. 4.7 mm longae, tubis ca. 1.5 mm longis glabris, faucibus ca. 2.7 mm longis subcylindratis superne leniter latiores base campanulatis extus glabris, lobis triangularibus ca. 0.8 mm longis et 0.7 mm latis extus glandulo-punctatis in sinibus minute paucis setuliferis intus margine dense papillois; filamenta in partibus superioribus ca. 0.35 mm longa valde incrassata; thecae antherarum ca. 1.8 mm longae; appendices antherarum flavae ovatae ca. 0.55 mm longae et 0.4 mm latae extus glanduliferae; rami stylorum anguste lineares non glanduliferi solum distaliter puberuli. Achaenia leniter complanata vel triquetra anguste obpyramidata ca. 4 mm longa inferne glabra superne valde constricta et dense setulifera apice in coronis ca. 0.3 mm longis setulo-fimbriata minute subaristata, aristis ad 0.6 mm longis. Grana pollinis in diametro ca. 25-27 μ m.

TYPE: BRASIL: Goiás: Morro da Cruz, 16°03'S, 47°48'W. Alt. 960 m. Erva até 0.5 m; cabeças amarelas. Campo sujo num declive muito unclinado com cascalho na superfície. 25 Jan. 1983. *J. H. Kirkbride Jr.* 5129 (Holotype, UB; isotype, US). PARATYPE: BRASIL: Distrito Federal: Bacia do Rio São Bartolomeu. Broto de toco pequeno; folhas ásperas com cheiro enjoativo; flores amarelas; cerrado. 27-XII-1979. *E. P. Heringer* 2989 (US).

The new species has a habit rather similar to *Wedelia regis* described below, but differs by the more nearly glabrous stems, the scarcely asperulous leaf surfaces, the ovate involucral bracts, and the longer strictly submarginal papillae inside the lobes of the disk corollas.

WEDELIA MACEDOII H. Robinson, sp. nov.

Plantae herbaceae perennes subprostratae 0.3 m vel ultra longae mediocriter ramosae. Caules flexuosi flavo-brunnescentes subteretes vix striati dense hirsuti et glandulo-punctati. Folia opposita, petiolis brevibus ca. 1 mm longis abrupte demarctis; laminae ovatae plerumque 1.5-4.0 cm longae et 0.7-2.5 cm latae base late rotundatae margine crenato-serratae apice breviter acutae fere ad basem divaricate trinervatae supra vix insculptae scabro-pilosae et pilosulae subtus pallidiores in nervis hirsutae vel hirtellae aliter erecte pilosulae et dense glandulo-punctatae. Inflorescentiae in ramis terminales 1-3-

capitatae, pedunculis 2-3 cm longis dense hirsutis et glandulo-punctatis. Capitula late campanulata 7-8 mm alta et in involucri ad 8-9 mm lata; squamae involucri 8-9 oblongo-ovatae ca. 5 mm longae et 2-3 mm latae herbaceae apice breviter acutae vix patentibus extus dense hirsutae et glandulo-punctatae; paleae oblongae 5-6 mm longae et ad 1.5 mm latae flavae apice rubescentes et breviter argute acuminatae extus inferne glabrae superne pilosae et dense glandulo-punctatae margine superne ciliato-pilosae. Flores radii ca. 8 in capitulo; corollae flavae, tubis ca. 1 mm longis infundibularibus pilosulis puberulis et glandulo-punctatis, limbis brevibus oblongis ca. 5 mm longis et 2.8 mm latis apice breviter trilobatis extus dense glandulo-punctatis in nervis pilosulis. Flores disci ca. 35 in capitulo; corollae flavae 3.2-3.5 mm longae, tubis 0.8 mm longis glabris, faucibus ca. 2 mm longis anguste leniter infundibularibus base leniter campanulatis extus plerumque glabris in nervis superne pauca pilosulis, lobis triangularibus ca. 0.5 mm longis et latis extus glandulo-punctatis et scabridis apice scabridioribus intus praeter basem dense breviter papillois; filamenta in partibus superioribus ca. 0.25 mm longa vix incrassata; thecae antherarum ca. 1.5 mm longae; appendices antherarum ovatae 0.30-0.35 mm longae et ca. 0.25 mm latae; rami stylorum lineares valde recurvati extus supra mediam sensim papillois non glanduliferi. Achaenia leniter complanata vel triquetra obpyramidata 4.5 mm longa et 1.5 mm lata inferne glabra superne sensim dense scabridulo-pilosula apice valde constricta, coronis apicalibus ca. 0.2 mm altis glanduliferis et in marginis pilosulis, aristis dentibus vel squamellis connatis pappi nulli vel subnullis. Grana pollinis in diametro 25-30 μ m.

TYPE: BRASIL: Minas Gerais: Araxá. Compestre prostrata, amarelas. 2-II-1956. A. Macedo 4234 (Holotype, US).

The new species seems most closely related to *Wedelia bishopii* of Goiás and the Distrito Federal in its rather prostrate habit, the inflorescence form, and the pubescence of the involucre and corollas. The present species differs by its more ovate leaves with broadly rounded bases, the more sharply serrate leaf margins, the densely hirsute stems. The species is apparently also basically glanduliferous while only one collection of *W. bishopii* has shown any glandular punctations. The new species has some superficial resemblance to the type photo of *W. modesta*, but the latter has distinctly long petioles, leaves that are more cordate and acuminate, a finer pilosity, and solitary heads terminal in pseudodichotomies.

WEDELIA PERTENUIS H. Robinson, sp. nov.

Plantae herbaceae annuae ad 0.3 m altae mediocriter laxae et late ramosae; xylopodia nulla. Caules flavi subteretes non striati antrorse appresse strigosi, internodis plerumque 2-4 cm longis. Folia opposita subsessilia, petiolis indistinctis ca. 1-2 mm longis; laminae lineares plerumque 2-5 cm longae et 1.5-

2.5 mm latae margine integrae vel subintegrae planae vel subplanae apice anguste acutae supra et subtus glandulo-punctatae supra plerumque prope marginem et subtus breviter strigulosae. Inflorescentiae diffusae in nodis terminalibus et divaricate ramosis solitariae, pedunculis 4-6 cm longis tenuibus et sensim dense strigosis. Capitula 6-7 mm alta in involucris ad 9-11 mm lata; squamae involucris 8-9 ellipticae 6-7 mm longae et 1.5-2.0 mm latae flavo-virides tenuiter herbaceae erecto-patentes apice acutae extus strigosae et minute glandulo-punctatae margine superne breviter strigoso-fimbriatae; paleae oblanceolatae ca. 6 mm longae et 1.0-1.5 mm latae scariosae superne flavescentes apice acutae in sicco leniter rugosae extus ad medio et margine ciliato-strigulosi superne pauca glandulo-punctatae. Flores radii ca. 8 in capitulo; corollae flavae, tubis ca. 1 mm longis in lineis subsinosis scabridulis aliter glabris, limbis oblongis ca. 6 mm longis et 3 mm latis apice valde bilobatis subtus non setuliferis sparse minute glandulo-punctatis. Flores disci ca. 35 in capitulo; corollae flavae ca. 2.8 mm longae, tubis ca. 0.8 mm longis glabris, faucibus ca. 5 mm longis leniter infundibularibus base leniter campanulatis extus glabris, lobis triangularibus ca. 0.5 mm longis et latis extus pauca glanduliferis in sinibus uni- vel bi-pilosulis intus omnino dense pilosis; filamenta in partibus superioribus ca. 0.2 mm longa vix incrassata in cellulis marginalibus non scleroidea; thecae antherarum ca. 1.1 mm longae; appendices antherarum flavae ovatae ca. 0.3 mm longae et 0.25 mm latae extus dense minute glanduliferae; rami styliorum breviter lineares leniter patentem extus supra mediam sensim pilosuli non glanduliferi. Achaenia leniter complanata vel triquetra obpyramidata ca. 2.5 mm longa et 1.3 mm lata superne irregulariter rugosa et base breviter flave pedunculata in marginis sublobata vel subalata inferne glabra superne sparse striguloso-pilosula apice valde constricta, coronis apicalibus subnullis minute pauca lobatis non aristatis. Grana pollinis in diametro ca. 23 μ m.

TYPE: BRASIL: Goias: 37 km NW of Itumbiara on road to Rio Verde. Slender much-branched herb to 1/2 m forming dense stands in forest clearing, brown sandy soil. Ligulate Co. yellow; disc yellow. Locally abundant. 2 Feb. 1959. *H. S. Irwin 2541* (Holotype, US).

The form of the type specimen indicates that *Wedelia per-tenuis* is an annual. In addition to the slight habit, the species seems distinctive in the nearly glabrous lower surfaces of the ray corollas, the unsclerified marginal cells of the anther collar above the base, and the slightly ornate rugosity of the achenes. The species has some resemblance to *Wedelia longifolia* Mart. ex Baker, but the latter has more oblong leaves, pilose or hirsute stems leaves and bracts, and as dried the rays show evidence of a UV bull's-eye pattern.

WEDELIA REGIS H. Robinson, sp. nov.

Plantae herbaceae perennes e xylopodiis erectae 0.5-1.0 m altae pauce vel non ramosae. Caules flavi vel fulvescentes teretes hirsuti vel dense pilosi. Folia opposita, petiolis 1-3 mm longis; laminae oblongae vel ellipticae plerumque 2.5-8.0 cm longae et 0.7-4.0 cm latae base anguste vel late rotundatae margine multo crenato-serratae apice breviter acutae distincte supra basem trinervatae aliter in nervis secundariis pinnatae supra dense pilosae subtus subvelutinae albo-hirtellae in nervis et nervulis prominulae. Inflorescentiae in caulibus et ramis terminales tri- vel deca-capitatae, pedunculis 1-4 cm longis dense pilosis. Capitula late campanulata 10-12 mm alta; squamae involucris 10-12 oblongae 7-13 mm longae et 3.5 mm latae apice obtusae erectae vel leniter patentibus extus et distaliter intus breviter pilosulae; paleae scariosae ca. 7-8 mm longae plerumque obrhomboideae apice triangulares acutae erectae vel leniter reflexae interdum rufescentes extus inferne subglabrae in medio pilosulae distaliter dense pilosulae subapice sparsius pilosulae. Flores radii 10-12 in capitulo; corollae flavae, tubis aliquantum brevibus ca. 2 mm longis dense puberulis in lineis subsinosis sparse scabridis, limbis oblongis ca. 11 mm longis et 6 mm latis apice bilobatis vel minute trilobatis extus dense pilosulis et glandulo-punctatis. Flores disci ca. 40 in capitulo; corollae flavae ca. 6 mm longae, tubis 1.5 mm longis glabris, faucibus ca. 3.5 mm longis subcylindraceis base campanulatis extus glabris, lobis triangularibus ca. 1 mm longis et latis extus multo glandulo-punctatis in sinibus minute puberulis intus dense breviter papillois; filamenta in partibus superioribus ca. 0.35 mm longa valde incrassata; thecae antherarum ca. 2.5 mm longae; appendices antherarum flavae ovatae ca. 0.6 mm longae et 0.5 mm latae extus glanduliferae; rami stylorum lineares subcarnosi leniter reflexi extus non glanduliferi apice vix penicillati. Achaenia leniter complanata vel triquetra obpyramidata 4-5 mm longa inferne subglabra superne valde constricta et dense setulifera apice in coronis ca. 1.5 mm longis dense squamellata et setulo-fimbriata non aristata. Grana pollinis in diametro ca. 35 μ m.

TYPE: BRASIL: Distrito Federal: 43 km N of the bridge at Asa Norte on Hwy DF #17 enroute to Alto Paraiso in cut-over cerrado. Low suffrutescent herb with thick rootstock. Florets yellow, anther black. Local. Jan. 18, 1980. *R. M. King & F. Almeda 8192* (Holotype, UB; isotype, US). PARATYPES: BRASIL: Distrito Federal: Em Fazenda 28 de Maio, perto de DF-20, ca. 12 km W de Gama, 16°01'S, 48°12'W. Alt. 960 m. Erva até 60 cm; cabeças verdes. A margem de mata ciliar seca e campo cerrado. 10 Feb. 1982. *J. H. Kirkbride, Jr. 4665* (US); Perto da DF-20, alt. 1.055 m. No campo cerrado. Erva de até 50 cm. Flores amarelas. 22 Nov. 1982. *C. Proença 274* (US); Gama, forest, 16°00'S, 48°08'W. 7 March 1965. *L. B. Smith 15079* (US); Goiás: 11 km N of Federal District border off of Hwy DF #17 in cerrado.

Suffrutescent herb 0.5 m tall. Florets yellow; anthers black. Jan. 18, 1980. *R. M. King & F. Almeda 8201* (US); West of road to Monte Alegre de Goiás, 12-20 km N of Alto Paraiso de Goiás. Elev. 4000-4400 feet. Subshrub 1/2 meter tall, dry field. Flowers yellow. Feb. 7, 1981. *R. M. King & L. E. Bishop 8823* (US, distributed as *W. puberula* DC.); 5-12 km S of Alto Paraiso de Goiás, mostly E of road to São João da Aliança. Elev. 3300-3800 feet. Coarse herb from xylopodium, flowers yellow. Feb. 8, 1981. *R. M. King & L. E. Bishop 8908* (US); On ridge 115 km S along road from Alto Paraiso de Goiás to Brasília. Elev. 3300 feet. Coarse herb from xylopodium, flowers yellow. Feb. 9, 1981. *R. M. King & L. E. Bishop 8914* (US); 25 km N of Crystallina along the road to Brasília. Elev. 2200 feet. Coarse herb from xylopodium, flowers yellow. Feb. 13, 1981. *R. M. King & L. E. Bishop 8941* (US), *8943* (US); 27 km SE along road from Crystallina to Paracatu. Elev. 2600 feet. Stout herb from xylopodium, flowers yellow. Feb. 15, 1981. *R. M. King & L. E. Bishop 8971* (US); In cerrado. 15 km N of Corumbá de Goiás on road to Niquelândia, in valley of Rio Corumbá. Cerrado and low woods on sandstone slopes, ca. 1150 m elev. 14 Jan. 1968. *H. S. Irwin, H. Maxwell, D. C. Wasshausen 18596* (US); 20 km NW of Corumbá de Goiás, near Pico dos Pirineus. Wet Campo. Gallery forest and adjacent wet campo ca. 1250 m elev. 26 Jan. 1968. *Irwin et al. 19223* (US); Serra dos Pirineus, rocky slopes ca. 10 km E of Pirenópolis. Locally common on rocky slopes. Stems in clumps, to ca. 50 mm tall. Rays yellow; disc yellow-brown. 15 Jan. 1972. *H. S. Irwin, W. R. Anderson, M. Stieber, E. Y.-T. Lee 34160* (US); Cerrado and adjacent gallery forest, ca. 25 km S of Niquelândia. Elev. ca. 750 m. 24 Jan. 1972. *Irwin et al. 34956* (US); Ca. 3 km NO de Goiás Velho, 15°55'S, 50°09'O. Cerrado, s.s., com muitas rochas. Erva até 1 m; cabeças amarelas. 10 Feb. 1980. *J. H. Kirkbride, Jr. 3388* (US); Minas Gerais: Serra da Anta. ca. 5 km NW of Paracatu. Rocky hillside, recently burned over, mostly with cerrado. Elev. 800 m. Herb to ca. 75 cm tall. Rays yellow; disc yellow-brown. 4 Feb. 1970. *H. S. Irwin, E. Onishi, S. F. da Fonseca, R. Souza, R. Reis dos Santos, J. Ramos 25986* (US).

Wedelia regis seems closest to *W. puberula* DC. of those previously described, but the latter can be distinguished at a glance by the thinner textured more ovate leaves trinervate from the base, by the generally sharply serrate leaf margins, and by the generally smaller size of the heads. The new species also seems close to two of the new species described above, *W. almedae* with less distinctly trinervate leaves and projecting bases on the involucre bracts and *W. kirkbridei* with scarcely asperulous leaves and broad involucre bracts. Other details are given under those species. The present new species differs from the two that follow basically by its more clustered heads in addition to other details that can be seen in the descriptions.

WEDELIA SOUZAЕ H. Robinson, sp. nov.

Plantae herbaceae perennes erectae ad 1.0-1.5 m altae medio-criter ramosae. Caules fulvescentes teretes striati dense pilosi vel hirsuti vel strigosi, internodis plerumque 2-4 cm vel ultra longis. Folia opposita subsessilia vel distincte petiolata, petiolis 1-9 mm longis; laminae oblongo-ovatae vel ellipticae plerumque 1.5-7.0 cm longae et 0.5-3.0 cm latae base anguste vel late rotundatae margine anguste vel distincte reflexae superne subtiliter serrulatae vel distincte serratae apice breviter acutae base valde tri- vel quinque-nervatae supra strigosae et strigulosae rugulosae non-glanduliferae in nervis primariis leniter vel distincte insculptae subtus exsculpto-nervatae in nervis et nervulis dense strigosae saepe subsericeae inter nervulis dense glandulo-punctatae. Inflorescentiae terminales in ramis unicapitatae, pedunculis plerumque 3-7 cm longis strigosis vel dense hispidulis et minute puberulis. Capitula late campanulata 6-9 mm alta; squamae involucri 6-10 late oblongo-ellipticae 5-6 mm longae et ca. 3 mm latae apice obtusae extus dense canescentiter strigosae margine vix vel non reflexae; paleae oblongae vel obovatae 5-6 mm longae et 1.5-2.0 mm latae apice triangulares et breviter acutae saepe atrorubescentes extus inferne glabrae vel subglabrae distaliter puberulae et dense glandulo-punctatae. Flores radii 6-10 in capitulo; corollae flavae, tubis ca. 1 mm longis sparse vel dense scabrido-setuliferis, limbis oblongis 9-11 mm longis et ca. 4.5 mm latis apice valde bilobatis vel minute trilobatis subtus dense glandulo-punctatis prope nervis scabrido-setuliferis, ramis stylo-rum ad apicem stigmataceo-papillosis. Flores disci ca. 30-35 in capitulo; corollae flavae 4.0-4.5 mm longae, tubis 1.0-1.2 mm longis glabris, faucibus ca. 2.5 mm longis leniter infundibularibus base campanulatis extus plerumque glabris, lobis triangularibus ca. 0.8-1.0 mm longis et 0.7-0.8 mm latis extus glandulo-punctatis irregulariter non vel dense setuliferis in sinibus fasciculate pauce puberulis et scabridulis intus margine et superne dense leniter papillosis; filamenta in partibus superioribus ca. 0.3 mm longa mediocriter incrassata; thecae antherarum ca. 1.5-1.8 mm longae; appendices antherarum flavae ovatae ca. 0.35-0.40 mm longae et 0.30-0.40 mm latae extus glanduliferae; rami stylo-rum lineares non glanduliferi. Achaenia leniter complanata vel triquetra obpyramidata 3.5 mm longa et 1.8 mm lata irregulariter pustulata inferne glabra superne dense scabridula apice valde constricta in coronis 0.5-0.7 mm longa multidentata pauce vel non scabridula non aristata, dentibus pappi apice anguste glanduliferae. Grana pollinis in diametro 25-30 μm .

TYPE: BRASIL: Goiás: Chapada dos Veadeiros, ca. 42 km south of Cavalcante. Elev. 1000 m. Brejo. Valley with cut-over woodland and brejo. Subshrub ca. 1 m tall. Rays yellow; disc yellow-brown. 11 March 1969. *H. S. Irwin, R. Reis dos Santos, R. Souza & S. F. da Fonseca 24245* (Holotype UB; isotypes, NY,

US). PARATYPES: BRASIL: Goias: *M. A. Glaziou 21563* (US, distributed as *Viguiera oblongifolia* Gardn.); Chapada dos Veadeiros, 14°S, 47°W., 24 km NW of Veadeiros, road to Cavalcante. Elev. 1200 m. Rocky creek margin near waterfall. Subshrub ca. 1 m tall. Rays yellow-orange; disc yellowish. 22 Oct. 1965. *H. S. Irwin, R. Souza, R. Reis dos Santos 9510* (US); ca. 7 km W of Veadeiros. Gallery margin. Burned-over campo. Elev. 950 m. Shrub ca. 1 m tall. Rays yellow, disc yellow-brown. 15 Feb. 1966. *H. S. Irwin, J. W. Grear, Jr., R. Souza, R. Reis dos Santos 12888* (US); ca. 10 km W of Alto do Paraíso (formerly Veadeiros). Gallery margin, bordering campo. Campo on rocky slopes. Elev. 1000 m. 24 March 1969. *H. S. Irwin, R. Reis dos Santos, R. Souza & S. F. da Fonseca 24974* (US); ca. 18 km N of Alto do Paraíso. Gallery margin with wet campo. Gallery forest bordering riacho, with adjacent campo and cerrado. Elev. ca. 1250 m. Brittle shrub ca. 1 m tall, in dense stands. Ligules yellow; discs yellow-brown. 21 March 1971. *H. S. Irwin, R. M. Harley, G. L. Smith 32844* (US); Estrada Alto Paraíso a Campo Belo, km 38. Brejo. Arbustiva até 1 m. Capitulos amarelos. 28.11.1976. *G. J. Shepherd, J. B. de Andrade, L. S. Kinoshita & J. Y. Tamashiro 3749* (NY).

The species may have a xylopodium, but none were on the specimens and none were mentioned in the collection data. The new species seems closest to the following *Wedelia veadeirosensis* which also has solitary heads on each leafy branch. The present species differs by the roughened and more glanduliferous upper surfaces of the leaves, the more canescent pubescence of the leaf undersurface, and the possibly unique cylindrical apical glands on the segments of the pappus. Some of the specimens show irregular patchy dense scabrosity on paleae and disk corollas.

WEDELIA VEADEIROSENSIS H. Robinson, sp. nov.

Plantae herbaceae perennes e xylopodiis? erectae ad 1 m altae mediocriter vel multo ramosae. Caules fulvescentes subteretes dense pilosuli, internodiis inferioribus ad 6-9 cm longis, internodiis ramosis plerumque 1.0-1.5 cm longis. Folia opposita subsessilia, petiolis ca. 1 mm longis; laminae oblongo-ellipticae 1.2-1.5 cm longae et 0.4-0.7 cm latae base rotundatae margine superne subtiliter serrulatae apice perbreve acutae fere ad basem et intramarginale trinervatae supra dense pilosulae et glandulo-punctatae in nervis primariis prominentes subtus exsculptae plerumque in nervis et nervulis dense pilosulae inter nervis dense glandulo-punctatae. Inflorescentiae in ramis terminalibus 1- vel interdum 3- capitatae, pedunculis 11-22 mm longis dense canescentiter pilosulis et glandulo-punctatis. Capitula 7-8 mm alta et 8-10 mm lata; squamae involucri ca. 8 subaequales breviter oblongae ca. 4 mm longae et 3 mm latae margine superne et apice reflexae rotundatae vel obtusae extus dense pilosulae et glandulo-punctatae; paleae oblongae 5-6 mm longae et ca. 2.5

mm latae apice triangulares et breviter acuminatae margine integrae planae superne puberulo-fimbriatae apice saepe reflexae extus inferne subglabrae superne dense puberulae et glandulopunctatae. Flores radii ca. 6 in capitulo; corollae flavae, tubis ca. 1 mm longis in superficiis subsinosis dense puberulis et scabrido-setuliferis aliter glabris, limbis oblongis ca. 4.5 mm longis et 3 mm latis apice bilobatis subtus dense glandulopunctatis in nervis scabridulis et puberulis, ramis stylosum in lineis stigmataceis subapice terminales. Flores disci ca. 15-20 in capitulo; corollae flavae 4 mm longae, tubis ca. 1 mm longis glabris, faucibus ca. 2.5 mm longis cylindraceis base campanulatis extus plerumque glabris, lobis triangularibus ca. 1 mm longis et 0.8 mm latis extus glandulopunctatis prope sinibus pauca puberulis et scabridulis intus margine breviter dense papillois; filamenta in partibus superioribus ca. 0.35 mm longa distincte incrassata; thecae antherarum ca. 1.5 mm longae; appendices antherarum ovatae ca. 0.40-0.45 mm longae et 0.30-0.35 mm latae extus glanduliferae; rami stylosum breviter lineares subcarnosi extus non glanduliferi. Achaenia leniter complanata vel triquetra obpyramidata submatura 3.5 mm longa inferne glabra superne dense puberula et setulifera apice valde constricta in coronis ca. 1.0-1.5 mm longis valde irregulariter multi-dentata et dense puberula et setulifera non aristata. Grana pollinis in diametro 25-27 μ m.

TYPE: BRASIL: Goiás: 27 km S of Alto Paraíso. Disturbed cerrado vegetation at 2900 ft. elev. Wiry shrub 0.5-1.0 m tall. Florets yellow. Jan. 25, 1980. R. M. King & F. Almeda 8299 (Holotype, UB; isotype, US).

The new species is closely related to and sympatric with the preceding although it sometimes has more than one head on a leafy branch. The species differs from the preceding by the more glanduliferous smooth surface and more prominent costa on the upper side of the leaf, by the more reflexed margins of the involucre bracts, by the shorter internodes and smaller leaves of the branches, the apparently more easily deciduous lower leaves, the tips of the style branches of the ray flowers, the extent of papillosity on the inner surface of the disk corolla lobes, and the length and vestiture of the pappus segments.

Literature Cited

- Baker, J. G. 1884. Compositae IV. Helianthoideae, Helioidae, Anthemideae, Senecionideae, Cynaroideae, Ligulatae, Mutisiaceae. In C. F. P. de Martius. Flora Brasiliensis. 6(3): 136-412. pl. 45-108.
- Bohlmann, F., C. Zdero, R. M. King and H. Robinson. 1982. Eudesmanolides and kaurene derivatives from *Wedelia hookeriana*. Phytochemistry 21: 2329-2333.



PLANTS of Brazil

Plant material of Botanical Vouchers

No. *2901568*
 Brazil: Goiás, 80 km. W. of Alta Floresta. Disturbed
 cerrado vegetation at 1000 ft. elevation.
 Herb. 1.7 m. tall. Flowers yellow; anthers black.

UNITED STATES

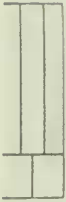
2901568

NATIONAL HERBARIUM

Robert Merrill King
 and Frank Almeida
 January 25, 1980

Specimens collected for the United States National Herbarium
 Smithsonian Institution, Washington, D. C.

Wedelia almedae H. Robinson, Isotype, United States National Herbarium. Photos by Victor E. Krantz, Staff Photographer, National Museum of Natural History.



UNITED STATES

2922414

NATIONAL HERBARIUM

**PLANTAE BRASILIANAE
REGALES ET EPISCOPALES**

N. A. B. February 11 1981

wedelia

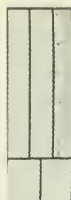
1. 3m along road W from Seabra,
Esp. Mat. Itaipirama. Elevation 1900 feet

1.5m one meter tall flowers yellow

12-10-81 (1981) N. A. B. 11/11/81

Specimen restitutum exsiccatum et ad herbarium. Hoc specimen in
formam prout conditum est

Wedelia bahiensis H. Robinson, Isotype, United States
National Herbarium.



UNITED STATES

2950723

NATIONAL HERBARIUM

*Wedelia*FUNDAÇÃO INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA
HERBÁRIO DA HORTA BOTÂNICA DO IGB

Brasília - DF

Brasil
CompositaeWedeliaLuziania Co, saída da cidade.
Ervão rasteira sobre o solo, flores amarelas;
cerredo seco sujeito a incêndios periódicos.

18193

1961.1961

Leg: E. F. Brincker

Wedelia bishoppii H. Robinson, Isotype, United States
National Herbarium.



MUSEO INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATISTICA
 - RESERVA DA RESERVA ECOLOGICA DO RONCADOR

Brasil - DF

Brasil
 Compositae

Wedelia heringeri H. Robinson

Brasília-DF (Escola Fazendária).

Planta de cerrado seco, aberto, um tanto
 volúvel, flores amarelas.

nº 16793

20/c1/76

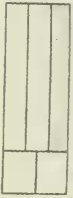
Lev: Ezechias P. Heringer

UNITED STATES

2928456

NATIONAL HERBARIUM

Wedelia heringeri H. Robinson, Isotype, United States
 National Herbarium.



FLORA DO BRASIL

HERBÁRIO A. MACEDO

LAZARUS DUTRA LINS - FLORESTA - MINAS GERAIS - BRASIL

N.º

Wedelia

Flora

Col.

Alt.

Man.

Dir.

Wedelia macedoi H. Robinson, Holotype, United States National Herbarium.



PLANTS OF BRAZIL

DISTRIBUTED BY THE UNIVERSITY OF TEXAS
HERBARIUM

N. Roberson 1959
 GOIAS 17m E.W. of Itumbara on road
 to Rio Verde. Slender much-branched
 herb to 1/2m. forming dense stands in
 forest clearing, brown sandy soil. Lig-
 ulete to yellow; disc yellow. Locally
 abundant.

DATE: 2 February 1959

COLL. BY: R. W. ROBINSON

NO. 2541

Wedelia pertenuis H. Robinson, Holotype, United States
 National Herbarium.



PLANTS of Brasil
 (Cytological and/or Biochemical Vouchers)

UNITED STATES

2901863

NATIONAL HERBARIUM

Brasil: Distrito Federal, 41 km N of the highway at Asa
 Norte on Hwy DF #17 entrance to Alto Paraiso, 1000 m over
 errado.

Herb. 100 cm tall, pubescent herb with thick rootstock. Florets
 of involucre black. Local.

Robert Merrill King
 and Frank Almeida January 18, 1980

Specimens collected for the United States National Herbarium
 Smithsonian Institution Washington D.C.

Wedelia regia H. Robinson, Isotype, United States National Herbarium.



THE NEW YORK BOTANICAL GARDEN
 Plants of the Plantão de Brazil
 Estado de Goiás
 Município de Itapacaramba

No. 26245

Herb. 13 13222

Herb. ca. 1m tall. Rays yellow;
 disc yellow-brown. Dry, open valley
 with cut-over woodland and scrub,
 ca. 1/2 km south of Cavalcante. Elev.
 1300 m.

11 March 1969
 F. Irwin, E. Reis dos Santos,
 K. Sata & V. V. da Fonseca

1969. This material was the collection of the Universidade de Brasília and
 the Instituto de Pesquisas e Experimentação de Brasília, deposited in 1969 in
 the United States National Herbarium.

UNITED STATES

2518612

NATIONAL HERBARIUM

Wedelia souzai H. Robinson, Isotype, United States National Herbarium.



PLANTS of Brazil

Cytological and other herbarium specimens

No. 8290

Wedelia veadeiroensis H. Robinson

Small shrub, 2" km S of Alto Paraiso, Mato Grosso, Brazil, vegetation at 2900 ft. elevation.

Shrub 0.5 - 1 m tall. Florets yellow.

Robert Merrill King
and Frank Almeida

January 25, 1960

Specimens collected for the United States National Herbarium,
Smithsonian Institution, Washington, D.C.

UNITED STATES

2901566

NATIONAL HERBARIUM

Wedelia veadeiroensis H. Robinson, Isotype, United States National Herbarium.