

Supplementary file 1. Infragenic classification of *Verbesina* L. based on Robinson & Greenman (1899), and taxonomic revisions of sections

<i>Verbesina</i> section	Characterisation	Occurrence	Taxonomic revision
<i>Alatipes</i> B.L.Rob. & Green.	Alternate or opposite leaves, radiate, large, subglobose capitula, yellow corollas, foliose phyllaries, and light-yellow ligules	Mexico	Not revised
<i>Hamulium</i> (Cass.) DC.	Alternate leaves, radiate, solitary capitula, small and yellow	Cuba, Guyana and Mexico	Not revised
<i>Lipactinia</i> B.L.Rob. & Greenm.	Alternate or opposite leaves, discoid and small capitula	Argentina, Bolivia, Brazil, Ecuador and Mexico	Blake (1925)
<i>Ochractinia</i> B.L.Rob. & Greenm.	Alternate leaves, radiate and small capitula, ray corollas white	Brazil, Costa Rica, Colombia, Guatemala, Guyana, Mexico, USA and Venezuela	Olsen (1985)
<i>Platypteris</i> (Kunth) DC.	Opposite leaves, 3–5 lobate leaves, discoid, large, subglobose capitula	Chile, Costa Rica, Guatemala and Mexico	Olsen (1988), Turner (2008)
<i>Pseudomontanoa</i> B.L.Rob. & Greenm.	Alternate or opposite leaves, 3–5 lobate leaves, radiate and small capitula, ray corollas yellow	Mexico and Venezuela	Turner (1985)
<i>Pterophyton</i> (Cass.) A.Gray	Opposite leaves, radiate, medium to large, solitary and usually numerous capitula, yellow corollas	Mexico and USA	Not revised
<i>Saubinetia</i> (J.Rémy) B.L.Rob. & Greenm.	Alternate or opposite leaves, oblong, oval to lanceolate leaves, radiate, small capitula, yellow corollas	Bolivia, Brazil, Chile, Costa Rica, Ecuador, Guatemala, Mexico, Nicaragua and Paraguay	Not revised
<i>Sonoricola</i> B.L.Rob. & Greenm.	Opposite leaves, radiate capitula, medium to large capitula, yellow corollas	USA, Mexico	Coleman (1966a)
<i>Stenocarpha</i> B.L.Rob. & Greenm.	Opposite leaves, sinuate-pinnatifid leaves, radiate, medium, subglobose capitula, phyllaries narrow-linear, papillose cypselas	Mexico	Not revised
<i>Verbesinaria</i> DC.	Alternate or opposite leaves, radiate, numerous, medium to large capitula, ray flowers long, up to 2.5 cm, corollas yellow	Argentina, Arizona, Brazil, Ecuador, Mexico, Paraguay, Uruguay and USA	Not revised
<i>Ximenesia</i> A.Gray	Alternate or opposite leaves, radiate, large capitula, yellow to orange corollas	Argentina, Bolivia, Cuba, Mexico, Paraguay, Uruguay and USA	Coleman (1966b)