Abstract

line 53: There is a full account of the genus in Engler, Pflanzenreich Lasioideae (1911), so the claim of 130 years is correctable to 109 years.
line 54: The sister relationship between Pseudohydrosme and Anchomanes has yet to be demonstrated because the molecular analyses in which these genera have been included have sampled only one species of each genus. They demonstrate the close relationship (which is not in any doubt), but cannot discern whether or not Pseudohydrosme is nested in Anchomanes or whether they really are sister genera.
line 66: separate the epithet from the genus.
line 72: also in cultivation in Australia

Introduction

lines 115–120: sentence a bit garbled. Suggest clarify.
line 140 & 141: Nauheimer et al., 2012 (follow with semi colon, and change order of cited refs); comma after Cusimano et al..
line 143 (and throughout the manuscript): Hetterscheid & Bogner paper was published in 2013, not 2014.
line 151: Hetterscheid & Bogner (2013) indicate clearly that Hetterscheid had seen the Congolese specimen and identified it as P. gabunensis. I have also examined photographs of it flowering (but not the specimen which I cannot find on-line), and the inflorescence is extremely similar to that of P. gabunensis (same distinctive spathe shape and colouration).

Results

Taxonomic Treatment

line 210. statement of sister relationship between Pseudohydrosme and Anchomanes is made with excessive certainty (see comment pertaining to line 54).
lines 211–214. Suggest clarify by breaking this sentence up and take the parenthetical part out of brackets.   Hay et al.,
line 214: Aglaonemateae is now monogeneric following the reduction of Aglaodorum to the synonymy of Aglaonema https://www.researchgate.net/profile/Hong_Truong_Luu/publication/340910056_The_phylogenetic_position_of_Aglaodorum_Schott_Araceae_-_Aroideae_-_Aglaonemateae/links/5eaeb49b92851cb2676fbcdd/The-phylogenetic-position-of-Aglaodorum-Schott-Araceae-Aroideae-Aglaonemateae.pdf
line 219/220: “the primary leaf venation with basal ribs of the primary veins very well developed” doesn’t make sense: “well developed posterior costae” would be better. Note also that this phrasing in the manuscript is taken verbatim out of Cusimano et al., 2011, and does not appear in Cabrera et al. 2008 that I can find.
line 221: although the leaf blades are dracontioid, they derive from complex splitting of a ‘simple’ and virtually entire blade as the leaf unfurls after emergence, which is why the leaflets at the margin are truncate with two ‘tips’. This is unique to Pseudohydrosme/Anchomanes (see Hay in Gard. Bull Singapore 71, Supplement 2 (2019) 285), but not mentioned in this manuscript.
line 238: leaf emerging from several cataphylls
line 240: see previous note about leaves dividing along complex patterns of splitting lines.
lines 242 & 243. This distinction between the leaflet venation of the two species is at best over-categorical: some leaflets in P. gabunensis clearly show the primary venation looping somewhat squarely near the margin so forming a more or less sinuous ‘submarginal vein’, as in the photo of SOME of the leaflets of P. ebo. However, it is debatable whether this really constitutes a submarginal vein (cf., e.g., Xanthosoma where a submarginal vein is very clearly defined — a continuous vein, into which the primary veins run, situated almost exactly parallel to the leaf margin). Note too that in the photo of the P. ebo leaf, some leaflets have some of the primary veins running to the margin.
line 246: cataphyll colour? Also the cataphylls do not ‘conceal’ the spathe tube, most of which is clearly visible. Probably better expressed as ‘cataphylls exceeding the peduncle’?.

line 248: “fornicate, resembling the horn of a euphonium” is contradictory because the margins of a euphonium horn are spreading throughout, not fornicate! Maybe just ‘vase- (or funnel-) shaped with the limb margin spreading to recurved except for the distal part of the limb fornicate’??
line 266/267: berry ripening at first white; note that berries then ripen dark purple in a basipetal sequence through the infructescence (exactly as in Anchomanes). Berry is the subject of this sentence, but it is the infructescence, not the berry, which is “borne on a slightly accrescent peduncle”.
line 268: add endosperm absent
lines 296 & 297 seem to imply that cultivation is frequent in Africa - is that so? It is also cultivated in Australia.
line 301: x=13 must surely be wrong, and I can’t find it mentioned in either of the cited references. n=20 throughout Nephthytideae and Aglaonemateae (with one count of n=18 in Nephthytis). See also Petersen 1989 - Cytology and systematics of Araceae, Nordic Journal of Botany 9: 119-166.
line 303. Add seedling type (C2) from Tillich 2003, 2014 - Seedlings of Araceae [note incidentally that they are all extremely similar in Aglaonema, Nephthytis and Anchomanes - this is the first published obs on Pseudohydrosme, I think].
line 319: note earlier comment about venation not being so categorically different between the species.
line 335: NOT male flowers connate in pairs, but anthers connate in pairs (see Brown in Thistleton-Dyer).
line 338 et seq.: I think it has to be noted that all the shapes and dimensions stated are taken from literature and Engler’s somewhat stylised drawing. Currently they are stated (implicitly) as observed facts.
lines 353 & 354: inconsistent punctuation after ‘flowers’.
line 371: the large spathe length is approached by P. gabunensis, at least in cultivation, where it gets well in excess of 70 cm long. The difficulty here is that it is not at all uncommon for aroids, particularly those with very large solitary blooms, to flower long before the plants have achieved maximum dimensions (e.g. all the variable-sized Amorphophallus titanum flowerings reported in the media).
line 388: probably worth mentioning that there is no sterile appendix in any other member of the entire Aglaonemateae/Nephthytideae clade.
line 390: a lot of the stamens seem rather clearly to be paired in P. gabunensis, but not all. I have not observed them to be in “rings of five”, though the arrangement does tend to be quite indistinct [functionally the male zone is really little more than a mass of stamens in the whole of this clade (Aglaonemateae + Nephthytideae)]
line 452: stamens, not male flowers. I don’t think they are regularly in groups of 5: as noted above, a lot seem to be paired. There are sometimes a few sterile stamens at the tip pf the spadix (but not adequate numbers to define an appendix).
lines 473–475: hitherto it’s been veins, now nerves. Preferable not to change? Also in lines 663–665.
line 477: comma after spotted.
line 478: I very much doubt the cataphylls are actually distichous. Large angle spiral phyllotaxis probably — spirodistichous?. Missing word after ‘oblong elliptic’.
line 479: comma after spathe.
line 480: I think strictly speaking these are prickles not spines (also line 468). You use prickles elsewhere.
line 481: does ‘tubular’ mean subcylindric? It is not actually a tube. ’limb’ is usual rather than ‘blade’ for the upper spathe (though it is probably partly homologous to a leaf blade!).
line 484: clarify “at marginal separated”.
line 485: is “of the tube” not redundant?
line 487: you made a point earlier about the spadix of gabunensis not being cylindrical.
line 492: see earlier comment about numbers of stamens per male flower.
line 502: comma after stipitate
line 561 & 562: one too many “or not”s.
line 567: in (or on), not n.
line 586: is this a new paragraph?
line 600: and Australia (Cairns Botanic Garden in Queensland regularly flowers it).
lines 604–608: see earlier comment about the Congolese plant: it is certainly known in flower and is extremely similar to P. gabunensis in Gabon.
lines 610–618 seem to belong under P. ebo.

line 618: vegetatively, not apomictically.
line 620: pollinat<u>o</u>rs
line 648: delete space after YA
line 654: not apomixis: instead, plantlet formation?
line 667: again I very much doubt the cataphylls are really distichous: spirodistichous?
line 668: outermost (one word)
line 669: comma after amplexicaul; move comma after succession to after long (or delete comma and long!).
line 671: comma after long; replace ‘tubular’ with ‘convolute’.
line 673: ‘limb’ probably better than ‘distal spathe (blade)’ (also for blade elsewhere).
line 680: clarify if the female flowers are distant, or crowded leaving a bit of naked axis?? I don’t quite understand what ‘covering about half the surface..’ means.
line 681: comma after male zone.
line 685: are you sure about male flowers with c. 5 stamens? I presume there are various numbers: can you provide a range, and state what is the more usual number? Semi-colon after ‘c. 5 stamens’.
line 687: comma after (Fig. 6F)
line 688: delete comma after 3-celled.
line 732: comma after ibid.
line 804: I really don’t think the stipe of the fruit can be characterised ‘pedicel-like’ — stipe alone seems adequate and is not misleading. Apomixis, as I understand it, specifically means asexual reproduction via seeds; possibly ‘vegetative proliferation’ is better.
line 806: although the spontaneous generation of plantlets at the root tips is not recorded in Anchomanes, plants of Anchomanes are unusual in being readily propagated from root cuttings even using ordinary home-gardening techniques, or indeed with no technique at all — just broken roots left in the soil will regenerate (no reference for this: reported anecdotally by growers on-line). This is most unusual in Araceae (and monocots generally???).
line 812: as noted earlier, it’s not clear at all that the venation of P. ebo is qualitatively different from that in P. gabunensis.
line 811–816: Suggest delete all this. This has never been a character to <u>separate</u> these groups in the sense of contributing to <u>defining</u> them, and, as it is stated in the cited recognition key, it is inaccurate: as noted earlier some leaflets of P. gabunensis clearly have looping primary venation (whether that constitutes a submarginal vein is a bit semantic), and some leaflets in P. ebo appear in the photo to have their primary veins running to the margin. It seems to me that whatever difference there is between the two species in this regard is a matter of degree. Very similar venation to that of P. ebo can be observed in Gabonese WAG specimens of P. gabunensis at Naturalis on-line.
line 883: comma after however
line 970: Wong SY (not M)
line 1008: 365–368

Figures and tables

Figure 3: can you not add the record for Congo?
Figure 4, caption: they are paired stamens, not paired male flowers
Figure 6, caption: D is a group of three stamens (note also they are not in a group of five!!); E, F, again stamen not male flower.
Table 1: Row 2: note previous comments about venation in the two spp. Row 7: I find the reference to density confusing: is it that the flowers are all somewhat distant or is it that there is a naked portion of the spadix axis or a bit of both? Also it is not the rhachis but the spadix axis (at least in conventional Araceae usage — rhachis being a leaf axis bearing leaflets).
Table 2: Row 2: long- and short-pedunculate species abound in both Amorphophallus and Dracontium. Row 5: Is there a reference for absence of laticifers in Pseudohydrosme? It sounds

highly unlikely to me! Mayo Bogner & Boyce (1997) have presence as a characteristic of both Nephthytideae and Aglaonemateae — i.e. the whole clade.