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***Ellurema* gen. nov., with notes on *Lepteutypa cisticola*  
and *Seiridium canariense*.**

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Summary. – *Lepteutypa indica* (PUNITH.) von ARX is redispersed in *Ellurema* gen. nov. *Lepteutypa cisticola* ADE and its presumptive anamorph: *Seiridium canariense* (PETRAK) comb. nov. (= *Adea canariensis* PETRAK), are redescribed and illustrated.

**1. *Ellurema* gen. nov., Amphisphaeriaceae, Sphaeriales pertinens.**  
(Etym.: anagram of MUELLER).

Corticola ad foliicola. Ascomata perithecialia, dissita vel nonnunquam conferta, rare confluentia, immersa vel partim exposita, globosa vel depresso globosa, unilocularia, glabra, ostiolata, rostellata; rostrum breve, teretes, apice obtusis vel acutis, pallide brunneis, sparsim septatis, minute verruculosus tricholomatibus paratus; paries e externe "textura angulari" cum cellulis crassitunicatis et atrobrunneis, interne "textura prismatica" cum cellulis comparate tenuitunicatis et pallide brunneis vel subhyalinis composita; cellulae parietis in parte rostrii atrantes; ostiolum circulare vel ovale. Paraphyses sparsae, quam ascis longiores, filamentosae, rare ramosae, septatae, hyalinae, laeves. Asci in unum latum stratum orientes, unitunicati, subclavati ad plerumque saccati, uno stipite brevi et lato praediti, octospori; annulus apicalis amyloideus. Ascospores ordinatim vel irregulatim biseriatae, oblongae vel ellipsoideae, euseptatae, cellulae inaequales, primum hyalinae, post maturitatem melleae vel atrobrunneae et concolorae, verruculosae. Conidiomata stromatica, pycnidioidea, dissita vel gregaria, primum immersa postea exposita, unilocularia, glabra, brunnea vel atrobrunnea, sine ostiolo, sed irregulatim findentia; paries ex "textura angulari" e cellulis externe crassitunicatis et brunneis, interne e cellulis progressive tenuitunicatis et pallescentibus composita. Conidiophora circa cavitatem conidiomatis enascentia, cellulae conidiogenae redacta, in mucro involuta. Cellulae conidiogenae annellidicae, discretae, subcylindraceae vel ampulliformes, hyalinae, laeviae. Conidia blastico-annellidica, cylindracea ad fusiformia, euseptata cum cellulis inaequalibus, cellulis medianis flavide brunneis ad subhyalinis, cellulis extimis pallidioribus vel hyalinis, laevia, apice appendicibus ferentia; appendices duae vel tres, filiformes, simplices, vulgo bifurcatae vel trifurcatae, unaquaque ab locis seorsim oriundae.

Species typica: *Ellurema indica* (PUNITH.) NAG RAJ & KENDRICK

Corticolous to foliicolous. – Ascomata sometimes clustered, rarely confluent, immersed or becoming partly exposed, globose to depressed globose, unilocular, glabrous, ostiolate, beaked; beak short, terete, lined apically with acute to blunt, pale brown, sparsely septate hairs with verruculose walls at the base; wall of an external "textura angularis" with thick-walled, dark cells and an internal

“textura prismatica” with relatively thin-walled, pale brown to subhyaline cells; cells darker in the neck region; ostiole circular or oval. – Paraphyses scanty, longer than asci, filamentous, septate, rarely branched, hyaline, smooth-walled. – Asci in a broad basal

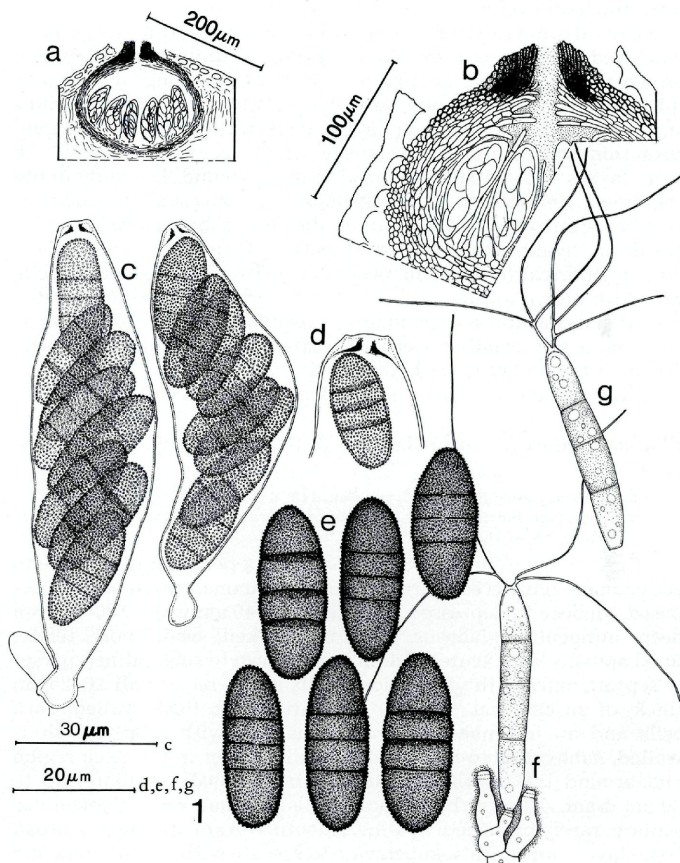


Fig. 1: *Ellurema indica* on leaves of *T. indica*: a. Vertical section of a perithecium. – b. Enlarged sectional view of a perithecium showing tissue details. – c. Two mature asci. – d. Enlarged view of ascus apex. – e. Mature ascospores. – f. Conidiogenous cells with a mature conidium. – g. Mature conidium.

layer, unitunicate, subclavate to mostly saccate with a short stalk and broad base from crozier attachment, with an apical amyloid ring, 8-spored. – Ascospores regularly or irregularly biseriata, oblong to ellipsoid, euseptate, cells unequal, hyaline but after maturity honey brown to dark brown and concolorous, wall somewhat thick and verruculose.

Conidiomata stromatic, pycnidoid, scattered to gregarious, immersed at first but eventually exposed, unilocular, glabrous, brown to dark brown, lacking an ostiole but opening by irregular splits in the upper wall and overlying host tissue; wall of “textura angularis”, cells in the outer layers thick-walled, brown, merging with thin-walled and progressively lighter coloured cells in the inner layers. – Conidiophores arising all around the cavity of the conidioma, reduced to conidiogenous cells, invested in mucus. – Conidiogenous cells annellidic, discrete, subcylindrical to ampulliform, hyaline, thin-walled, smooth. – Conidia blastic-annellidic, cylindrical to fusiform, euseptate, cells unequal, median cells yellowish brown to subhyaline, end cells lighter or hyaline, smooth-walled, bearing apical appendages; appendages 2–3, filiform, flexuous, simple but usually bi- or tri-furcate, each originating independently of the others from distinct loci.

Type species: *Ellurema indica* (PUNITH.) NAG RAJ & KENDRICK

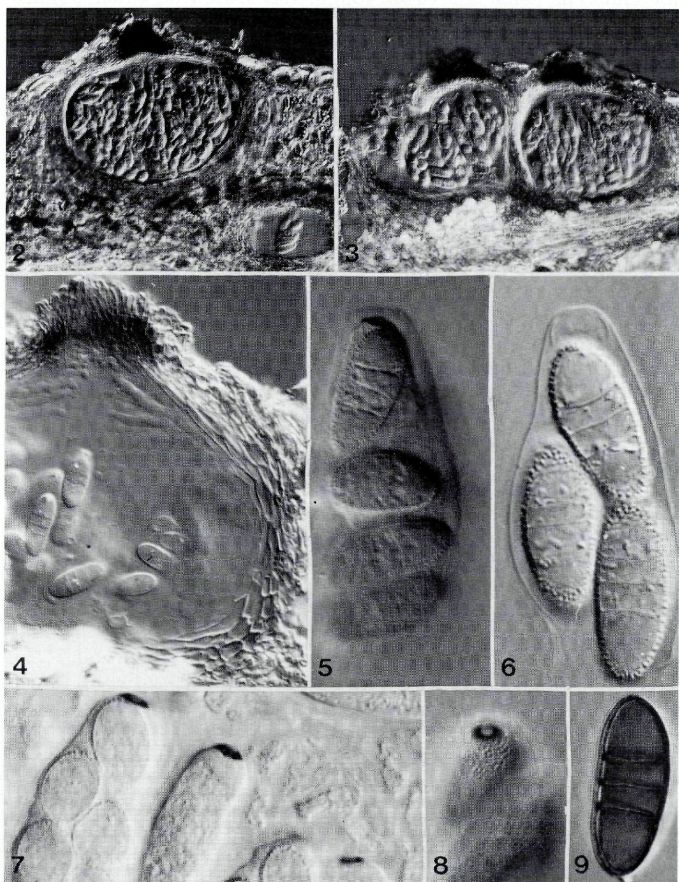
***Ellurema indica*** (PUNITH.) NAG RAJ & KENDRICK comb. nov. – Figs. 1–20.

≡ *Massaria indica* PUNITH., Mycol. Pap. 119: 6 (1969)

≡ *Lepteutypa indica* (PUNITH.) von ARX, Genera of fungi sporulating in pure culture, I Edn., Lehre: 118 (1970)

Corticulous to foliicolous. – Ascomata perithecial, discrete to occasionally clustered, rarely confluent, immersed to partly exposed, globose to depressed globose, 100–240  $\mu\text{m}$  wide, 100–200  $\mu\text{m}$  deep, unilocular, glabrous, ostiolate, beaked; beak short, terete, lined apically with acute to blunt, pale brown to subhyaline, sparsely septate hairs with verruculose walls at the base; wall 20–25  $\mu\text{m}$  thick, of an external “textura angularis” with thick-walled, dark cells and an internal “textura prismatica” with relatively thin-walled, subhyaline to hyaline cells; cells darker in the neck region and around the ostiole; ostiole circular or oval, papillate, up to 20  $\mu\text{m}$  diam. – Paraphyses scanty, longer than asci, filamentous, septate, rarely branched, hyaline, smooth. – Asci arising in a broad basal layer, unitunicate, subclavate to saccate with a short stalk and broad base, an apical apparatus consisting of a thick pulvillus and an amyloid ring, 8-spored, 68–98  $\times$  20–31 ( $\bar{x}$  = 85  $\times$  24.5)  $\mu\text{m}$ . – Ascospores regularly or irregularly biseriata, oblong to ellipsoid with obtuse or somewhat rounded ends, 3-euseptate, cells unequal,





Figs. 2-9: *Ellurema indica* on leaves of *T. indica* (All with Nomarski interference-phase contrast): Figs. 2 & 3: Vertical sections of perithecia, ca.  $\times 142$ . - Fig. 4. Enlarged sectional view of an ascoma showing tissue details of the wall and neck region, ca.  $\times 360$ . - Figures 5, 7 & 8. Ascus apex stained with KI in lactic acid mount, ca.  $\times 940$ . - Fig. 6. Ascus apex without staining but in lactic acid mount, ca.  $\times 940$ . - Fig. 9. Ascospore. Note the septal pores, ca.  $\times 940$ .



usually with the two central cells (each 4–4.5  $\mu\text{m}$  long) shorter than the end cells (each 9.5–10  $\mu\text{m}$  long), wall somewhat thick, slightly constricted at the septa, verruculose from early phase of development, hyaline but becoming honey brown to dark brown and concourous after maturity, 23–30  $\times$  9–12 ( $\bar{x}$  = 26.5  $\times$  10.5)  $\mu\text{m}$ ; mean ascospore length/width ratio = 2.5 : 1.

Conidiomata stromatic, pycnidoid, scattered to gregarious and often confluent, subepidermal in origin. immersed to partly exposed, subglobose to broadly conical, 110–210  $\mu\text{m}$  wide, 90–180  $\mu\text{m}$  deep, unilocular, glabrous, brown to dark brown, lacking an ostiole but dehiscing by irregular splits in the apical wall and overlying host tissue; wall 10–20  $\mu\text{m}$  thick, of "textura angularis", cells moderately thick-walled and brown in the outer layers, and progressively thin-walled and lighter in the inner layers. – Conidiophores lining the cavity of the conidioma, reduced to conidiogenous cells, invested in mucus. – Conidiogenous cells annellidic, discrete, lageniform to ampulliform, hyaline, smooth, 7–12  $\times$  3–5 ( $\bar{x}$  = 10  $\times$  4)  $\mu\text{m}$  with up to 3 annellations. – Conidia blastic-annellidic, cylindrical to fusiform or obclavate with a narrow truncate base and a more or less rounded apex, much broader in the basal part (5.6–6  $\mu\text{m}$ ) than in the apical part (4  $\mu\text{m}$ ), 3-euseptate, cells unequal, wall smooth and more or less constricted at the septa, (21–)24.5–36  $\times$  4.5–6 ( $\bar{x}$  = 30  $\times$  5.2)  $\mu\text{m}$ , bearing apical appendages; basal cell cylindrical, subhyaline to hyaline, 6–11 ( $\bar{x}$  = 8.5)  $\mu\text{m}$ ; 2 median cells doliiform, yellowish brown with slightly thicker walls than the end cells, together 9–16 ( $\bar{x}$  = 12)  $\mu\text{m}$  long (suprabasal cell 4.5–10 ( $\bar{x}$  = 7.2)  $\mu\text{m}$ ; subapical cell 4.5–7 ( $\bar{x}$  = 5.7)  $\mu\text{m}$ ); apical cell subcylindrical, subhyaline to hyaline, (6–)8–9.5 ( $\bar{x}$  = 8.7)  $\mu\text{m}$ ; apical appendages 2–4, originating at the conidium apex at separate loci, initially tubular, with the lumen ultimately occluded, unbranched to a length of 2–4  $\mu\text{m}$  from the point of origin and then becoming bi- or tri-furcate, branchlets filiform, flexuous; 20–45 ( $\bar{x}$  = 33)  $\mu\text{m}$  long; mean conidium length/width ratio = 5.8 : 1.

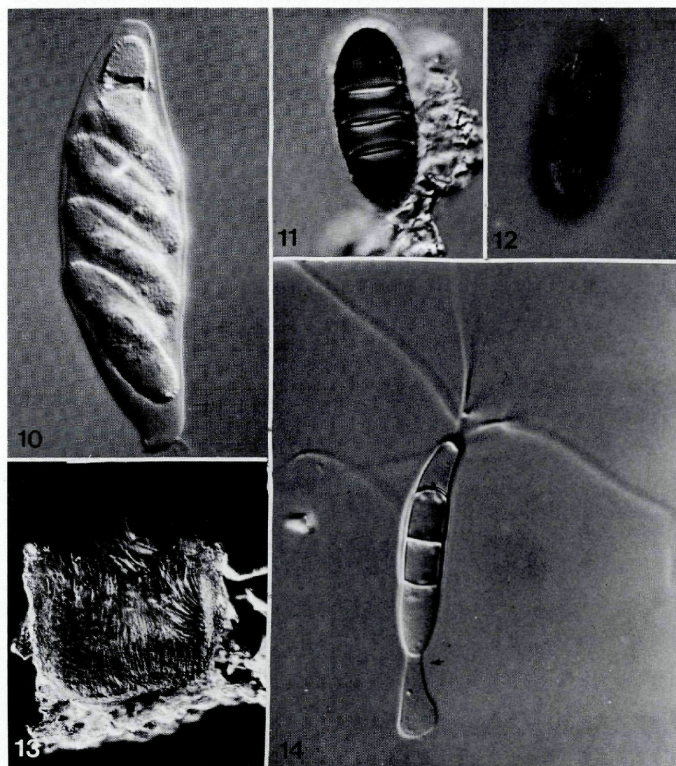
Habitat: On bark and fallen leaflets of *Tamarindus indica*.

Specimens examined: 1. IMI 136542 (type), isolated from bark of *T. indica*, Bangalore, India, 18. XI. 1968, AGNIHOTHRUDU. – 2. UW (F), on fallen, decaying leaflets of *T. indica*, Hebbal, Bangalore, India, 25. VII. 1967, NAG RAJ. – 3. IMI 142374, 7-day old PDA culture isolated from specimen cited in 2.

Known distribution: India.

The illustrations in Figs. 1–20 and descriptions of the fungus given above are based on the field collection cited as specimen No. 2. In his account of *M. indica* and its anamorph, PUNITHALINGAM (1969)

authenticated this culture. He adequately described the behaviour of the fungus on synthetic agar cultures, established the homothallic nature of the fungus by cultural studies and applied the binomial *Hyalotiopsis subramanianii* to the anamorph. He designated the same agar culture isolate (IMI 136542) as the type specimen of the



Figs. 10–14: *Ellurema indica* on leaves of *T. indica* (All with Nomarski interference-phase contrast); Fig. 10. Ascus in lactic acid mount without staining,  $\times 600$ . – Figs. 11 & 12. Ascospores. Note wall ornamentations in Fig. 12, ca.  $\times 940$ . – Fig. 13. Vertical section of a conidioma dehiscing wide open, ca.  $\times 142$ . – Fig. 14. Mature conidium still attached to the conidiogenous cell. Note the wall thickenings of the central cells and the apex of the apical cell. Arrow indicates the annellations on the conidiogenous cell,  $\times 940$ .

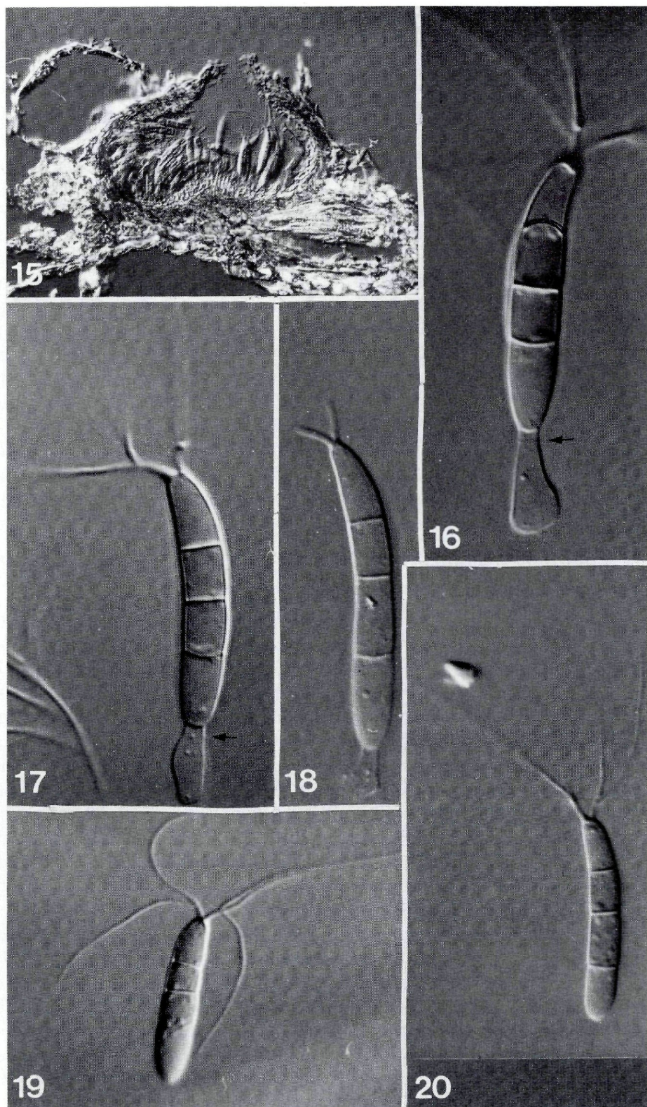
teleomorphic *M. indica* and the anamorphic *H. subramanianii*, and also omitted the ascospore dimensions from the description of the fungus. While independent observations of NAG RAJ (unreported data) on cultural characteristics of the fungus are comparable to those of PUNITHALINGAM (1969), we can concur neither with PUNITHALINGAM'S taxonomic disposition of the fungus as a member of the Pleosporaceae in the bitunicate ascomycetes, nor entirely with that by von ARX (1970), who redispersed it in *Lepteutypa* PETRAK in the Amphisphaeriaceae (Sphaeriales). The nomenclatural anomalies involving the binominal applied to the anamorph have been discussed in detail by THAUNG (1975) and NAG RAJ (1975). Because of the unique morphology of the anamorph, we believe that *M. indica* belongs more properly in a genus other than, but closely related to, *Lepteutypa*; we also believe that the problems of typification could be overcome by applying the name *E. indica* to the holomorph rather than to the teleomorphic phase of the fungus, since the genetic connection between the anamorph and teleomorph has been established beyond any shadow of doubt, and since the same isolate was originally designated as the type of the teleomorph as well as the anamorph.

PETRAK (1923) introduced the generic name *Lepteutypa* for a single species: *L. fuckelii* (NITSCHKE) PETRAK, relocated from *Mas-saria*. To-date a total of about nine species, most of them segregants from other genera, have been placed in the genus. Of these, *L. cisticola* ADE apud PETRAK (1929), *L. fusispora* PETRAK (1953) and *L. biseptata* PETRAK (1954) have received little attention in recent times (mostly because some of PETRAK'S type specimens have been inaccessible till now), while *L. hippophaes* (SOLLMANN) VON ARX (SHOEMAKER & MUELLER, 1965; SWART, 1973) and *L. cupressi* (NATRASS, BOOTH & SUTTON) SWART (1973) have been studied in greater detail. We have not been able to locate the type specimen of *L. biseptata*, but we have examined specimens of *L. fuckelii*, *L. cisticola*, and *L. fusispora* in PETRAK'S herbarium at W through the courtesy of Dr. U. PASSAUER. We find that *L. fusispora* is not congeneric with *L. fuckelii*: the asci do not possess an amyloid apical ring typical of a species of *Lepteutypa* and the ascospores are also atypical. An account of this fungus will be published elsewhere. Our studies of *L. fuckelii*, however, confirm the findings of SHOEMAKER & MUELLER (1965) and of SWART (1973). The following account of *L. cisticola* is of greater interest and relevance to this contribution.

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Figs. 15–20: *Ellurema indica* on leaves of *T. indica* (All with Nomarski interference-phase contrast): Fig. 15. Vertical section of a pycnidoid conidioma,  $\times 189$ . – Figs. 16–18. Conidia in various stages of development. Arrow marks the annellations,  $\times 1250$ . – Figs. 19–20. Mature conidia,  $\times 800$ .





PETRAK (1929) published an account of *Adea canariensis* PETRAK and suggested that it was possibly the anamorph of *L. cisticola* ADE. SUTTON (1977) speculated that *Adea* was probably a synonym of *Seiridium* NEES ex FR. The packet of the type specimen of *A. canariensis* contains, in addition to a few twigs of the host, PETRAK's notes concerning the two taxa. According to these notes, PETRAK intended to divide the collection between "*Massaria-Lepteutypa*" (as No. 46) and "*Monochaetia-artig*" (as No. 47) possibly as types of the two taxa, but never did so. He included, instead, the names "*Massaria cisticola* ADE n. sp." and "*Adea canariensis* PETR. n. gen., n. sp." on the single packet of specimen, thus making it the type of both taxa. In his published account of *L. cisticola* he stated that since the fungus must be perceived as a member of Sphaeriaceae it cannot belong in the Dothidealean genera, *Massaria* de NOT. or *Leptosphaeria* CES. & de NOT., and that it was best placed in *Lepteutypa*. Dr. PASSAUER has indicated that a separate type for *L. cisticola* does not exist in W. We have, therefore, segregated a small part of the type specimen of *A. canariensis* bearing *L. cisticola* as well and designated it as the lectotype of the latter. The following accounts of the teleomorph and anamorph and the illustrations in Figs. 21–40 are based on these two specimens.

2. *Lepteutypa cisticola* ADE apud PETRAK, Engler's bot. Jahrb. Beibl. 142: 109 (1929) – Figs. 21–40

Caulicolous. – Ascomata perithecial, mostly gregarious in groups of 3–5 per pustule, immersed to partly erumpent, depressed globose, 600–800  $\mu\text{m}$  diam, 300–450  $\mu\text{m}$  deep, with a slightly papillate ostiole in a very short neck protruding beyond the host periderm; wall up to 80  $\mu\text{m}$  thick, of a thin external "textura angularis" and an internal, thick "textura prismatica", cells thin-walled and lighter in the inner layers, somewhat darker near and around the ostiolar canal; ostiolar canal lined with periphyses; ostiole circular or oval, 20–25  $\mu\text{m}$  diam. – Paraphyses intermixed with asci, persistent, filamentous, more or less attenuated toward the apex, simple, rarely branched, septate, hyaline, smooth, longer than the asci, 3.5–5.5  $\mu\text{m}$  wide. – Asci unitunicate, subcylindrical to clavate, hyaline, smooth, with an apical apparatus consisting of a pulvillus and an amyloid apical ring, 8-spored, 150–220  $\times$  11–13 ( $\bar{x}$  = 12)  $\mu\text{m}$ . – Ascospores uniseriate, oblong to ellipsoidal with obtuse or rounded ends, euseptate, with 3 (or occasionally 2 transverse and 1 oblique) septa, cells unequal usually with the two middle cells shorter than the end cells, brown to dark brown, wall thick, smooth and occasionally constricted at the septa, 18–26(–28)  $\times$  8–10 ( $\bar{x}$  = 22  $\times$  9)  $\mu\text{m}$ ; mean ascospore length/width ratio = 2.4 : 1.

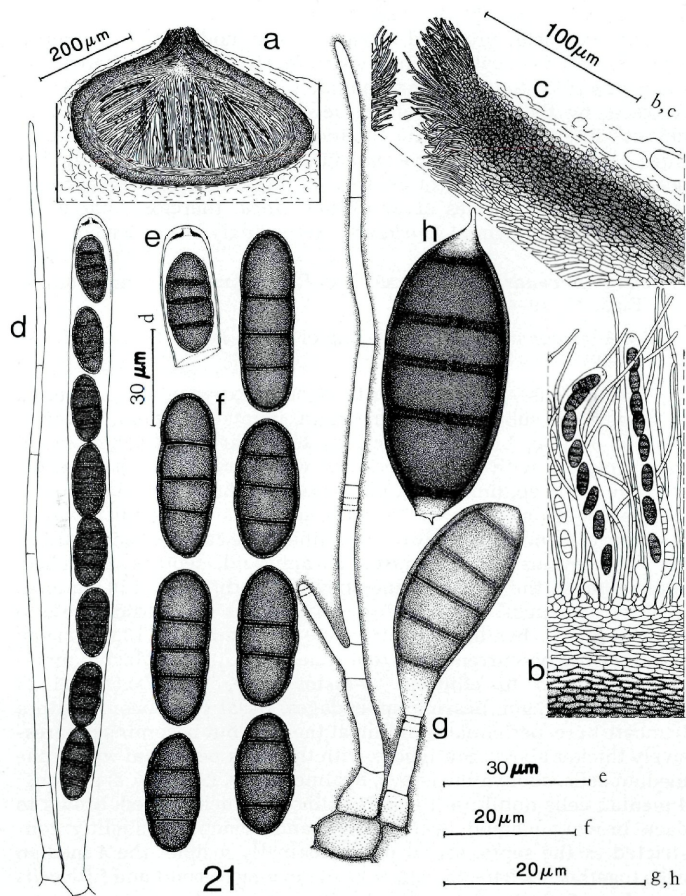


Fig. 21: *Lepteutypa cisticola* (a-f) and *Seiridium canariense* (g-h) ex type in W: a. Vertical section of an ascoma. - b, c. Enlarged sectional view to show tissue details of the basal wall and ostiolar region of the perithecium. - d. An ascus and a paraphysis. - e. Ascus apex. - f. Mature ascospores. - g. Conidiophores with a developing conidium. - h. Mature conidium.



Habitat: on *Cistus monspeliensis*.

Specimen examined: W (Lectotype), Barranco Anadigo, Tenerif, Canary Isl., 27. V. 1926, A. ADE.

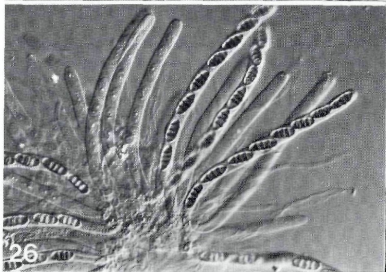
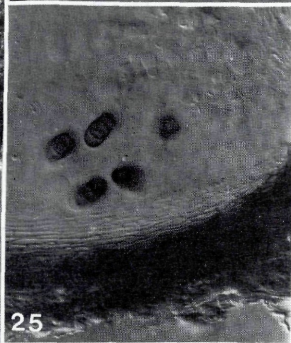
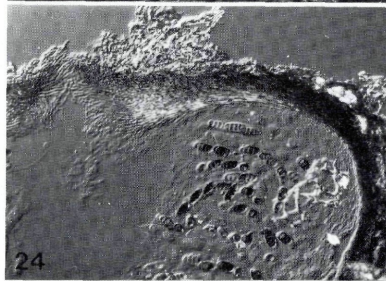
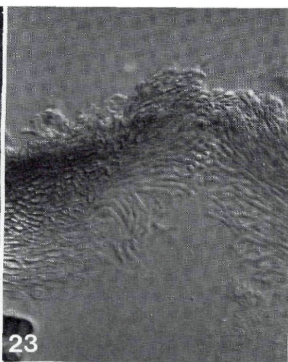
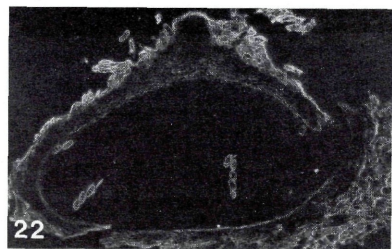
PETRAK (1929) proposed *Adea* to accommodate the anamorph found closely associated with *L. cisticola*. He sought to differentiate the genus from the somewhat similar taxa of *Monochaetia* (SACC.) ALLESCH. by the presence of sterile elements he called "pseudophyses" intermixed with the conidiophores in the conidiomata of *Adea canariensis*. We believe that such elements are not sterile but bear conidia at one time or another (cf. Fig. 21, g) and are encountered in several species of *Seiridium*. *Adea*, therefore, has to be treated as a synonym of *Seiridium*. Accordingly, we describe:

3. *Seiridium canariense* (PETRAK) NAG RAJ & KENDRICK, comb. nov. – Figs. 21, 29–40

≡ *Adea canariensis* PETRAK, Engler's Bot. Jahrb. Beibl. 142: 144 (1929)

Caulicolous. – Conidiomata stromatic, pycnidoid, scattered to gregarious, subperidermal in origin, innately-erumpent, linear to oval in outline, broadly conical in sectional view, conidiomatal cavity replete with gel, crateriform when dry, 250–400  $\mu\text{m}$  wide, 100–300  $\mu\text{m}$  deep, unilocular, glabrous, dark brown to black; basal stroma 15–20  $\mu\text{m}$  thick, of "textura angularis", cells thick-walled and pale brown. – Conidiophores lining the cavity of the conidioma, filamentous and appearing paraphysoid, septate, branched, subhyaline at the base, hyaline above, smooth, up to 120  $\mu\text{m}$  long, invested in mucus. – Conidiogenous cells annellidic, terete to subcylindrical, hyaline, smooth, 8–20  $\times$  1.5–2.5 ( $\bar{x}$  = 13.6  $\times$  2)  $\mu\text{m}$ , proliferating percurrently up to 4 times. – Conidia blastic-annelidic, fusiform to ellipsoid, 5-distoseptate, 26–32  $\times$  (10–)11–13 ( $\bar{x}$  = 28.5  $\times$  12)  $\mu\text{m}$ , bearing appendages; basal cell abconic with a truncate base, periclinal wall thin at the base but becoming progressively thicker above, contiguous with the thick periclinal wall of the median cells, subhyaline above, hyaline below, 2–4 ( $\bar{x}$  = 3)  $\mu\text{m}$  long; 4 median cells doliiform to short cylindrical, thick-walled, brown to dark brown, unequal, wall smooth and sometimes slightly constricted at the septa, septal pores distinctly visible, the 4 median cells together 19–24 (–25.5) ( $\bar{x}$  = 21.5)  $\mu\text{m}$  long (second and fifth cells from base 5–7 ( $\bar{x}$  = 6)  $\mu\text{m}$ , third cell from base 4.5–6 ( $\bar{x}$  = 5.2)  $\mu\text{m}$ ,

Figs. 22–28: *Lepteutypa cisticola* ex type in W (All with Nomarski interference phase contrast): Fig. 22. Vertical section of a perithecium,  $\times$  90. – Figures 23–25. Enlarged sectional views of a perithecium showing tissue details of the wall and ostiolar region. – Figs. 23 & 25:  $\times$  360; Fig. 24:  $\times$  142. – Figs. 26 & 28. Asci and paraphyses,  $\times$  180. – Fig. 27. Ascus apices in lactic acid mount stained in KI,  $\times$  1500.



fourth cell from base 4–6 ( $\bar{x}$  = 5)  $\mu\text{m}$ ); apical cell short conic, periclinal wall thick below becoming progressively thinner above, smooth, subhyaline below, hyaline above, 2–3.5 ( $\bar{x}$  = 2.7)  $\mu\text{m}$  long; appendages tubular, attenuated, apical appendage single, unbranched, 1.5–5 ( $\bar{x}$  = 3.2)  $\mu\text{m}$  long; basal appendage, when present, centric and then occasionally oblique, single, unbranched, 1–4 ( $\bar{x}$  = 2.5)  $\mu\text{m}$  long; mean conidium length/width ratio = 2.4 : 1.

Habitat: On twigs of *Cistus monspeliensis*.

Specimen examined: W (Holotype), Barranco Anadigo, Tenerif, Canary Isl., 27. V. 1926, ADE (No. 17394, in PETRAK Pilzherbarium) in association with *Lepteutypa cisticola*, *Coleophoma* sp., *Cytospora* sp. and *Eutyphella* sp.

SHOEMAKER & MUELLER (1965) have established, by cultural studies, a genetic connection between *L. hippophaes* and an unnamed *Seiridium*-like anamorph. SWART (1973) inferred a connection between *L. cupressi* and *Seiridium unicorne* (COOKE & ELLIS) SUTTON from a close association between the teleomorph and the anamorph in collections from Australia. Subsequently, BOESEWINKEL (1983) published the combination *S. cupressi* (GUBA) BOESEWINKEL for the anamorph of *L. cupressi* and considered it different from *S. cardinale* (WAGENER) SUTTON & GIBSON and *S. unicorne*. These findings, and the close association between *L. cisticola* and *S. canariense*, prompt us to concur with PETRAK (1929) that the two are probably related. We give below a key to the accepted species of *Lepteutypa* and a synopsis indicating the status of the other species previously considered to belong in the genus. Similarities and dissimilarities in morphological features of *E. indica* and species of *Lepteutypa* are listed in Table 1, justifying our rationale for segregating the former from the latter.

#### Key to species of *Lepteutypa*

- A. Mean ascospore length/width ratio = 2.7 : 1 or more. . . . . B
- A. Mean ascospore length/width ratio less than 2.5 : 1. . . . . C
  - B. Asci 8–10  $\mu\text{m}$  wide; ascospores with granular deposit in central line of septa, octagonal in transverse section, 6–6.5  $\mu\text{m}$  wide; anamorph unknown. . . . . *L. fuckelii*
  - B. Asci 10–15  $\mu\text{m}$  wide; ascospores without granular deposit in central line of septa, not octagonal in section, 7–9  $\mu\text{m}$  wide; anamorph *Seiridium*-like, with 5-celled conidia. *L. hippophaes*
- C. Mean dimensions of asci 192  $\times$  12  $\mu\text{m}$ , of ascospores 22  $\times$  9  $\mu\text{m}$ ; presumed anamorph: *Seiridium canariense* with a mean overall conidium width of 12  $\mu\text{m}$ , conidial septal spores distinctly visible. . . . . *L. cisticola*
- C. Mean dimensions of asci 100  $\times$  11  $\mu\text{m}$ , of ascospores



16.5 × 7.5 µm; presumed anamorph: *Seiridium cupressi* with a mean conidium width of 8 µm; conidial septal pores not distinctly visible . . . . . *L. cupressi*

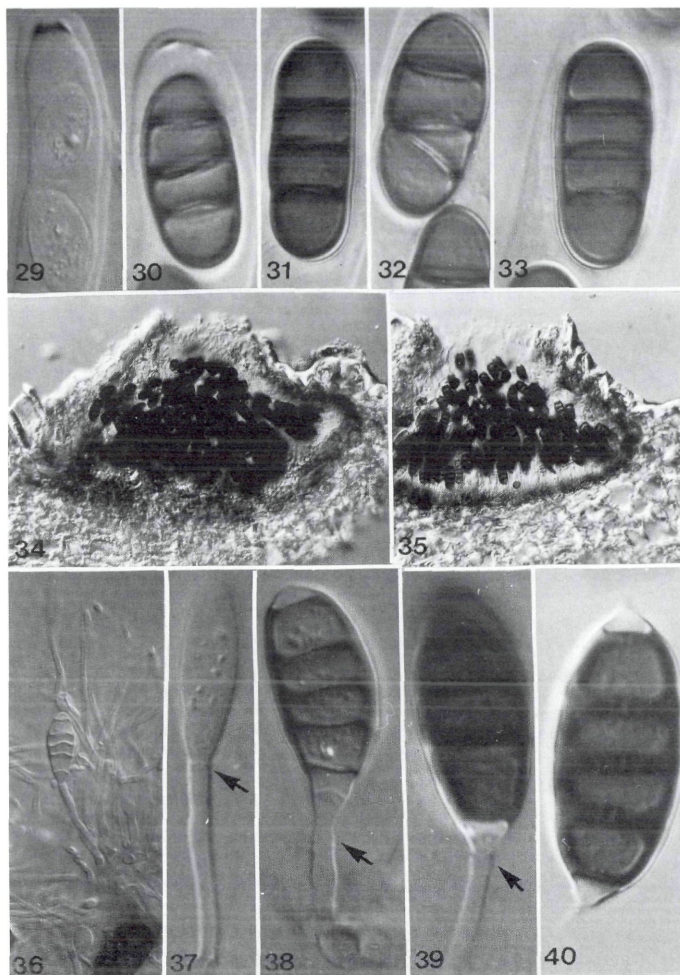
Table 1. Comparison of morphological features of *Lepteutypa* spp. and *Ellurema indica*.

Features.	<i>Lepteutypa</i> spp.	<i>Ellurema indica</i>
Ascomata	Perithecial, mostly in groups of 3–5 per pustule, ostiolar canal lined by periphyses.	Perithecial, solitary, sometimes clustered; beaked, beak lined apically with acute to blunt, pale brown, sparsely septate hairs.
Paraphyses	abundant, longer than asci.	Scant.
Asci	Unitunicate, subcylindrical to clavate, apical ring KI+	Unitunicate, saccate to subclavate, apical ring KI+.
Ascospores	Uniseriate, 3-septate, dark brown to brown, smooth.	Biseriate, 3-septate, hyaline (honey brown after maturity, but usually subsequent to dispersal), verruculose.
Anamorph	Where known, <i>Seiridium</i> spp.	<i>Hyalotiopsis subramanianii</i>
Conidiophores	Usually branched and septate, sometimes reduced to conidiogenous cells.	Usually reduced to conidiogenous cells.
Conidiogenous cells.	Annelidic, terete to subcylindrical.	Annelidic, ampulliform to subcylindrical.
Conidia	Fusiform to ellipsoid, with 3–5 distosepta, brown to dark brown, bearing apical and/or basal appendages.	Cylindrical to fusiform, with 3 eusepta, median cells yellow-brown to subhyaline, end cells lighter, bearing appendages at the apex only.
Appendages: Apical	Single, tubular, unbranched, attenuated, not separated from the apical cell by a septum, lumen not occluded.	2–3, filiform, flexuous, usually bi- or tri-furcate, rarely simple, originating at several loci at the thickened conidium apex, lumen occluded at maturity.
basal	Often absent; when present, centric, tubular, attenuated, unbranched, variable in length lumen not occluded.	Absent.

#### Status of other species of *Lepteutypa*

##### 1. *L. biseptata* PETRAK, Sydowia 8: 197 (1954)

On *Daviesia latifolia*, New South Wales, Australia. – Not examined. Whereabouts of the type specimen unknown.



Figs. 29–40: *Lepteutypa cisticola* (29–33) and *Seiridium canariense* (34–40) ex type in W (All with Nomarski interference-phase contrast): Fig. 29. Ascus apex in lactic acid mount, stained in KI,  $\times 1500$ . – Fig. 30. Ascus apex in lactic acid mount, unstained,  $\times 1500$ . – Figs. 31–33. Mature ascospores,  $\times 1500$ . – Figs. 34 & 35. Vertical sections of conidiomata. Note the gel-filled conidiomatal cavity,  $\times 142$ . – Fig. 36. Conidiophores, ca.  $\times 560$ . – Figs. 37–39. Conidiogenous cells, and developing conidia. Arrows mark percurrent proliferations,  $\times 1500$ . – Fig. 40. Mature conidium,  $\times 1500$ .

2. *L. concentrica* (BARR) von ARX, The genera of fungi sporulating in pure culture. 3<sup>rd</sup> Edn.: 174 (1981)  
Excluded from *Lepteutypa*. This is *Pestalospaeria concentrica* BARR, and differs from accepted species of *Lepteutypa* in the fact that the anamorph belongs in *Pestalotiopsis* (see NAG RAJ, 1985).
3. *L. elaeidis* (BOOTH & ROBERTSON) von ARX, *ibid.*: 176 (1981).  
Excluded from *Lepteutypa*. – This is *Pestalospaeria elaeidis* BOOTH & ROBERTSON) van der AA with the anamorph belonging in *Pestalotiopsis* (see NAG RAJ, 1985).
4. *L. fusispora* PETRAK, *Sydowia* 7: 387 (1953)  
On *Wistaria* sp., Hawaii. – Excluded from *Lepteutypa*. Not congeneric with *L. fuckelii*.
5. *L. indica* (PUNITHALINGAM) von ARX, The genera of fungi sporulating in pure culture. 1<sup>st</sup> Edn.: 118 (1970)  
= *Ellurema indica* (PUNITHALINGAM) NAG RAJ & KENDRICK; see above.

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