Publication, paper, and data in systematics: 

More or Furthur?

N. Dean Pentcheff
Natural History Museum of Los Angeles County
The role of literature in systematics & taxonomy
The role of literature in systematics & taxonomy

- Persistence of relevance
The role of literature in systematics & taxonomy

- Persistence of relevance
- Requirement of comprehensiveness
The role of literature in systematics & taxonomy

- Persistence of relevance
- Requirement of comprehensiveness
- Literature & bibliography as data
How do systematists use the literature?
How do systematists use the literature?

• Comprehensively, not explorationally
How do systematists use the literature?

- Comprehensively, not explorationally
- Career accretion of a library
How do systematists use the literature?

- Comprehensively, not explorationally
- Career accretion of a library
- Conservative scholastic tradition

*power accrues to the gatekeeper*
But where are we going?
But where are we going?

*Fewer Taxonomists ⇔ More Taxonomy*
But where are we going?

*Fewer Taxonomists ⇔ More Taxonomy*

- Faster species & taxon description
But where are we going?

Fewer Taxonomists ⇐ More Taxonomy

• Faster species & taxon description
• Greater atomization of taxonomy

(Guralnick & Maddisons)
But where are we going?

Fewer Taxonomists ⇔ More Taxonomy

• Faster species & taxon description

• Greater atomization of taxonomy
  (Guralnick & Maddisons)

• Improved accessibility to products
How can bioinformatics help?
How can bioinformatics help?

More
How can bioinformatics help?

• Get *all* the primary systematic literature publicly accessible

*Exploit U.S. Fair Use copyright law*
How can bioinformatics help?

1. More

- Get all the primary systematic literature publicly accessible
  *Exploit U.S. Fair Use copyright law*

- Treat references as first class data
  *Curated repositories*
  *Full change tracking*
  *Complete credit & accountability*
How can bioinformatics help?

Furthurur
How can bioinformatics help?

Furthur
Directions...
Directions...

• Create systems to support atomized systematics, with full attribution
Directions...

• Create systems to support atomized systematics, with full attribution

• Create automated systems linking literature and taxon names
Directions...

- Create systems to support atomized systematics, with full attribution
- Create automated systems linking literature and taxon names
- Enable the literature to carry taxonomic data in parallel with text

(Agosti, Penev)
Directions...

• Create systems to support atomized systematics, with full attribution

• Create automated systems linking literature and taxon names

• Enable the literature to carry taxonomic data in parallel with text

  (Agosti, Penev)

• Facilitate exposure of products

  *power accrues to the one who shares*
Danger...
Danger...
Losing systematists along the road
Danger...
Losing systematists along the road
Danger...
Losing systematists along the road
Strategy...
Danger...
Losing systematists along the road

Strategy...
• Build future directions *while* seducing systematists with “More” now
Danger...

Losing systematists along the road

Strategy...

• Build future directions *while* seducing systematists with “More” now

Please
Donate!
Danger...
Losing systematists along the road

Strategy...

• Build future directions *while* seducing systematists with “More” now

Please Donate!
Danger...
Losing systematists along the road

Strategy...
• Build future directions *while* seducing systematists with “More” now

• *Provide clear benefit to systematists today*