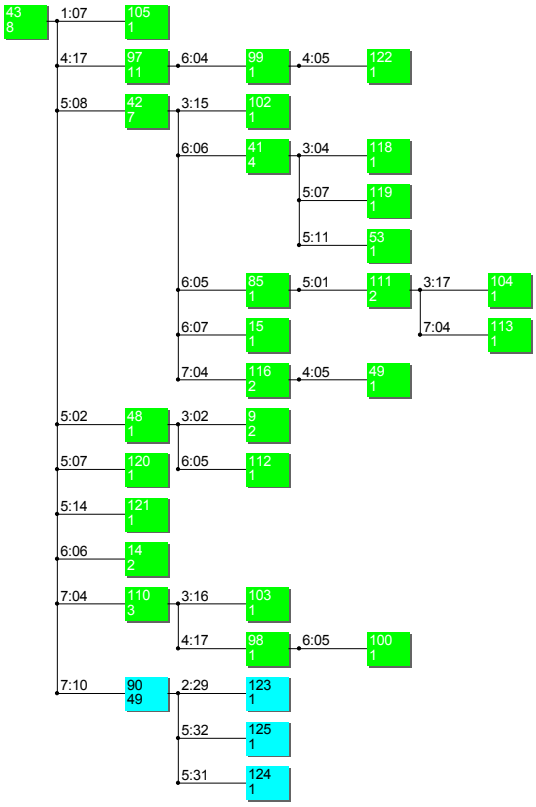
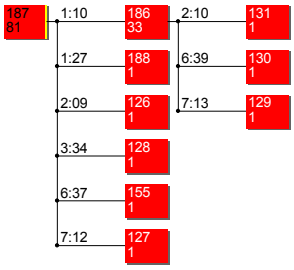
01 - 02 - 01 - 02 - 05 - 02 - 01



09 - 08 - 19 - 19 - 19 - 12 - 34



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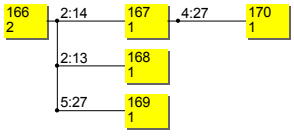

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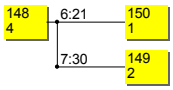

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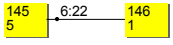

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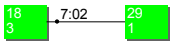
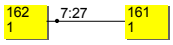
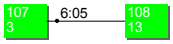


13 - 15 - 24 - 26 - 25 - 19 - 19



01 - 05 - 04 - 02 - 05 - 06 - 01



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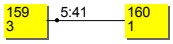

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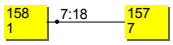

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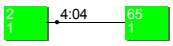

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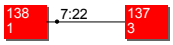

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01 - 02 - 01 - 06 - 06 - 02 - 01

07 - 02 - 01 - 02 - 14 - 06 - 01

01 - 02 - 04 - 02 - 08 - 05 - 04

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01 - 02 - 04 - 05 - 05 - 02 - 04

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10 - 11 - 19 - 19 - 20 - 12 - 34

10 - 08 - 19 - 19 - 19 - 13 - 14

13 - 15 - 22 - 26 - 25 - 19 - 17

02 - 02 - 01 - 02 - 08 - 05 - 02

13 - 15 - 24 - 23 - 26 - 23 - 17

18 - 19 - 28 - 32 - 29 - 27 - 24

16 - 15 - 24 - 26 - 26 - 23 - 28

18 - 19 - 28 - 32 - 44 - 27 - 25

05 - 02 - 01 - 02 - 03 - 05 - 02

01 - 02 - 05 - 02 - 01 - 02 - 02

01 - 05 - 01 - 18 - 08 - 02 - 01

22 - 15 - 27 - 22 - 34 - 31 - 34

23 - 28 - 22 - 24 - 38 - 30 - 29

13 - 21 - 23 - 22 - 33 - 23 - 26

13 - 28 - 22 - 24 - 37 - 34 - 32

19 - 19 - 29 - 33 - 30 - 27 - 25

13 - 22 - 23 - 26 - 26 - 21 - 17

13 - 13 - 27 - 30 - 36 - 35 - 17

174
1

12 - 13 - 22 - 30 - 22 - 15 - 16

179
2

16 - 26 - 32 - 25 - 39 - 33 - 28

180
1

26 - 27 - 31 - 31 - 43 - 38 - 33

184
1

25 - 13 - 30 - 26 - 23 - 32 - 31

140
1

20 - 20 - 27 - 26 - 23 - 28 - 19

142
1

20 - 28 - 30 - 26 - 35 - 29 - 30

143
1

24 - 13 - 30 - 29 - 23 - 28 - 19

141
1

13 - 16 - 23 - 26 - 26 - 40 - 18

156
1

13 - 23 - 33 - 30 - 36 - 36 - 30

176
1

13 - 20 - 23 - 26 - 42 - 23 - 17

165
1

21 - 25 - 33 - 22 - 23 - 40 - 19

144
1

13 - 13 - 22 - 26 - 24 - 17 - 17

171
2

13 - 13 - 24 - 22 - 40 - 20 - 17

175
1

14 - 17 - 25 - 28 - 28 - 25 - 20

185
1

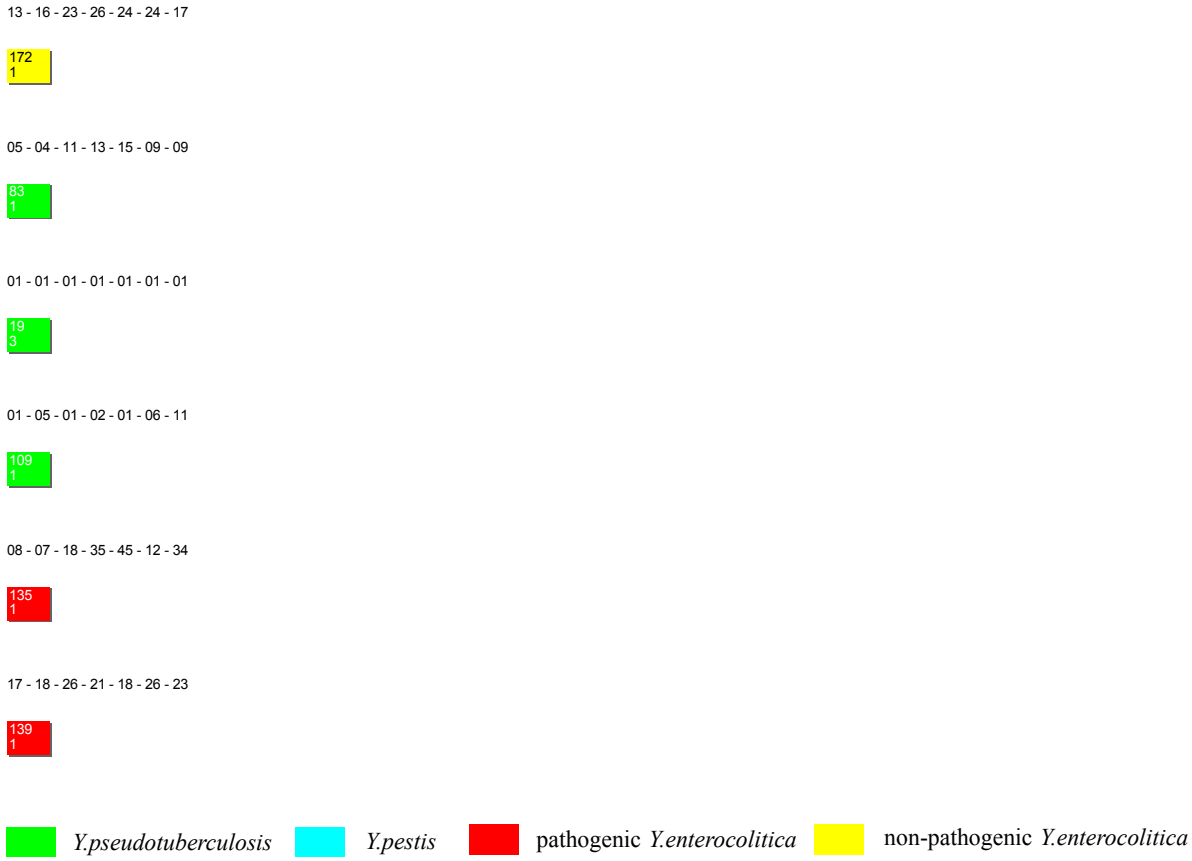
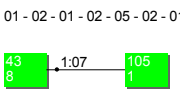


FIG S2 The shortest spanning path was based on 352 strains collected by our laboratory colored by species. It was output coincident with minimum spanning tree, using Bionumerics 5.10 (Applied Math) (Maximum neighbor distance: 1 change, Minimum size: 1 type). It demonstrated the shortest spanning path between STs that differed at one locus and provide more information than minimum spanning tree as the following Note.



Note: Take ST43 and ST105 as an example.
"01-02-01-02-05-02-01" was the profile of the sequence type (ST43) .
The numbers inside rectangle "43 and 8" stands for ST43 containing eight strains.
The numbers on line "1:07" stands for ST105 differing ST43 atfirst housekeeping gene, *adk*; and the allele assignment of ST105 was 07. Thus the profile of ST105 was: 07-02-01-02-05-02-01.