Levitan, Max. Mount Sinai Medical Center, New York, New York USNA. Spontaneous chromosome aberrations in D. robusta since October 1960. II. Autosomal inversions among the first 559.

The chromosome breakage factor in the STy strain of Drosophila robusta has resulted in over 2500 new aberrations to date. Levitan (1964) began to describe the first 559, the ones on which the reports delineating the main features of the breakage factor (Levitan 1962, 1963; Levitan and Schiller 1963) were based. I listed there the X-chromosome inversions in this group, also the few simple deficiencies that had been observed. This report will describe the autosomal inversions in these 559. It will also make some corrections in the previous report because one XR inversion was inadvertently left out and some changes became necessary upon reexamination of the material for this report.

Some of the preliminary material of Levitan (1964) will be repeated here, with a few emendations, in order to understand the descriptions. Copies of the earlier report, which contains this material in greater detail, including the division of the chromosome arms into the unit sections (Figure 1) mentioned in the text, are available from the author on request.

Classification Text Abbreviation
I. Deficiencies Df (arm)
II. Paracentric Inversions ipa (arm)
III. Pericentric Inversions ipe (chromosome)
IV. Reciprocal Translocations (2 breaks) T (arm:arm)
V. Transpositions (insertions, shifts) Tp (Df arm:Ins.arm)
VI. Multiple breaks and miscellaneous MB (arms involved) * As described in
VII. Nucleolar aberrations Nuc (type*:arm(s))* Levitan (1970).

"Newly Induced" or "Repeated". Aberrations seen only in one larva are referred to as "newly induced" to distinguish them from those seen more than once ("repeated") because the latter had been induced in an earlier generation and were being transmitted. In a few instances the single sighting occurred when less than six progeny of the cross were smeared, leaving a doubt of greater than 5% that it could be a "repeated" aberration, the other copies having missed by chance; such a single-appearing aberration is listed as "newly induced?" (rather than "repeated?") because most aberrations found to date have been "newly induced."

Cross or Experiment. The type of cross or experiment in which the aberration was encountered is noted according to the following outline:

A. Female(s) from stock STy or any of its subdivisions or substrains crossed to:
1. A male from a natural population; thus A1(O.) means "STy female x Ohio male." Occasionally more than one female was used per cross.
2. A male from a non-inducer laboratory stock.
3. A male from an artificial population based on non-inducer stocks.
4. A male from the same STy substrain.
5. A male from a different STy substrain.
6. A male descended from one of the above (A1-AS) crosses.
7. A male from a category not mentioned above.

B. Female from an experimental population based on STy stocks.
1. Female inseminated in the population.
2. Despermed female crossed to:
   a. A male from nature, as in A1.
   b. A stock male, as in A2.
3. Newly eclosed female crossed to:
   a. A male from nature, as in A1 or B2a.
   b. A stock male, as in A2 or B2b.

C. Female descended maternally from STy but karyotypically heterogeneous due to a previous outcross.
1. Female inseminated in the stock.
2. Newly eclosed female crossed to a male from the same stock.
3. Newly eclosed female crossed to male from a non-inducer stock.

D. Female from an ostensibly non-inducer line, with no apparent contact with STy flies, their eggs, or debris, crossed to:
1. A male from nature.
2. A male from a non-inducer stock.
3. A male from a cage developed from non-inducer lines.
Figure 1. *D. robusta* Standard chromosome diagram showing the correspondence between the percentile (capital letter) divisions of each arm and the older numerical divisions based primarily on the natural inversions. The central heterochromatin of X should be perhaps a bit longer than shown.
E. Female from an ostensibly non-inducer stock, in an experiment attempting to transfer the inducing property, crossed to:
1. A male from nature.
2. A male from a non-inducer stock.
3. A male from a non-inducer cage experiment.

F. STy male, the "opposite number" in every respect to "A" above.

G. STy cage male, "opposite number" in every respect to "B" above.

H. Male descended from STy female, "opposite number" to "C" above.

I. Non-inducer stock male, "opposite number" to "D" above.

J. Non-inducer cage male, "opposite number" to "E" above.

**Date.** Year and month, in Bridges & Brehme (1944) notation, when slide was made. Chronological order may differ from the numerical order because the latter is based on when slide was read. For transmitted aberrations seen on more than one slide, date is of first sighting.

**Acknowledgements.** This work was supported by grants from N.S.F., by U.S.P.H.S., Research Career Program award GM-K3-16,689, and by Anatomy Department Research Fund C9-2780 of the Mt. Sinai Medical Center.


NEW ENTRIES: Autosomal Inversions: Paracentric Inversions: Chromosome 2: Left Arm

**Abbreviations:** N-I = newly induced. R = repeated. M = Male. F = Female. x = cross.

<table>
<thead>
<tr>
<th>Inversion</th>
<th>Date</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Ipa(2L)1</td>
<td>#17</td>
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<tr>
<td>Ipa(2L)2</td>
<td>#23</td>
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<td>#22</td>
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<td>#32</td>
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<td>Ipa(2L)5</td>
<td>#47</td>
<td>R.</td>
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<td>#56</td>
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<td>#73</td>
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<td>#169</td>
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<td>Ipa(2L)13</td>
<td>#179</td>
<td>R.</td>
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<td>#182</td>
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<td>#193</td>
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<td>#202</td>
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<td>#226</td>
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<td>Ipa(2L)18</td>
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<tr>
<td>Ipa(2L)19</td>
<td>#231</td>
<td>N-I.</td>
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</table>
lpa(2L) 22. #246. N-I. Breaks on 2L-1 (obs): prox. one in hc; dist. one in O. F larva. A3 x 62g.
lpa(2L) 23. #267. N-I. Breaks on 2L-1 (inf): prox. one in F; dist. one in M. F larva. Same A3 x as lpa(2L)24 and others. 62h.
lpa(2L) 24. #266. N-I. Breaks on 2L-3 (inf): prox. one in K; dist. one in U. M larva. A3 x 62f.
lpa(2L) 25. #267. R. Breaks on 2L (obs): prox. one in hc; dist. one in I. F3 x. 62g.
lpa(2L) 27. #294. N-I. Breaks on 2L-3 (inf): prox. one in P; dist. one in T. F larva. Same A3 x as lpa(2L)24 and others (Levitan 1964). 62g.
lpa(2L) 28. #266. N-I. Breaks on 2L-3 (inf): prox. one in K; dist. one in U. M larva. A3 x 62f.
lpa(2L) 29. #267. R. Breaks on 2L (obs): prox. one in hc; dist. one in I. F3 x. 62g.
lpa(2L) 30. #294. N-I. Breaks on 2L-3 (inf): prox. one in P; dist. one in T. F larva. Same A3 x as lpa(2L)24 and others (Levitan 1964). 62g.
lpa(2L) 31. #350. N-I. Breaks on 2L-1 (inf): prox. one in F; dist. one in R2. F larva. A3 x. 62h.
lpa(2L) 32. #361. N-I. Breaks on 2L-1 (inf): prox. one in F; dist. one in R2. F larva. A3 x. 62h.
lpa(2L) 33. #363. N-I. Breaks on 2L (obs): prox. one in hc; dist. one in H. F larva. A3 x. 62g.
lpa(2L) 34. #361. N-I. Breaks on 2L-1 (inf): prox. one in F; dist. one in R2. F larva. A3 x. 62h.
lpa(2L) 35. #363. N-I. Breaks on 2L-1 (obs): prox. one in hc; dist. one in H. F larva. A2 x. 62i.
lpa(2L) 36. #371. N-I. Breaks on 2L (obs): prox. one in hc; dist. one in F. M larva. Same A1(0) x as lpa(2R)20 and others and same cells as lpa(2R)21. 62j.
lpa(2L) 38. #394. R. Breaks on 2L containing Ipa(2L)5 (obs): prox. one in E; dist. one in U. In A1(N.C.) and F1(N.C.) x's. First seen 62j.
lpa(2L) 39. #411. R. Breaks on 2L (obs): prox. one in I; dist. one in V. A1(N.C.) x. 62k.
lpa(2L) 40. #412. N-I. Breaks on 2L (obs): prox. one in hc; dist. one in N. M larva. Same A1(0.) x as lpa(2R)13 (Levitan 1964) and others. 62k.
lpa(2L) 41. #420. R. Breaks on 2L (obs): prox. one in 1-2; dist. one in W. Seen in all 9 male larvae from F1(N.C.), H3, and B1 x's, but does not involve the Y. 62k.
lpa(2L) 42. #447. R. Breaks on 2L (obs): prox. one in hc; dist. one in I. F1(N.C.) x. 62l.
lpa(2L) 43. #452. N-I. Breaks on 2L (obs): prox. one in N; dist. one in W. M larva. A1(N.C.) x. 62l.
lpa(2L) 44. #475. R. Breaks on 2L (obs): prox. one in A; dist. one in K. F1(O.) x. 63d.
lpa(2L) 45. #491. N-I. Breaks on 2L (obs): prox. one in hc; dist. one in I. B1 x's. 63c.
lpa(2L) 46. #496. N-I. Breaks on 2L-1 (obs): prox. one in I; dist. one in W. M larva. A1(N.C.) x. 62l.
lpa(2L) 47. #508. R. Breaks on 2L (obs): prox. one in hc; dist. one in C. B1 x's. 63c.
lpa(2L) 49. #510. N-I. Breaks on 2L (obs): prox. one in hc; dist. one in W. M larva. A3 x. 62f. (Levitan 1970: Fig. 1c)
lpa(2L) 50. #516. N-I. Breaks on 2L (obs): prox. one in D; dist. one in I. M larva. B1 x. 63c.
lpa(2L) 51. #521. N-I. Breaks on 2L (obs): prox. one in C; dist. one in M. F larva. Same B1 x as lpa(XR)17 (Levitan 1964) and lpa(2L)49. 63c.
lpa(2L) 52. #522. N-I. Breaks on 2L (obs): prox. one in G1; dist. one in J. M larva. Same B1 x as lpa(2L)48. 63c.
lpa(2L) 53. #527. N-I. Breaks on 2L-1 (obs): prox. one in J; dist. one in V. M larva. C2 x. 63c.
lpa(2L) 54. #528. N-I. Breaks on 2L-1 (inf): prox. one in M; dist. one in I. F larva. C2 x. 63c.
lpa(2L) 55. #532. N-I. Breaks on 2L (obs): prox. one in F; dist. one in T. M larva. C2 x. 63c.

Chromosome 2: Right Arm

lpa(2R) 22. #38. R. Breaks on 2R (obs): prox. one in hc; dist. one in O. A4 x 62a. Persisted in stock many years.
lpa(2R) 24. #65. N-I. Breaks on 2R-1 (obs): prox. one in D; dist. one in K. F larva. C2 x. 62c.
lpa(2R) 25. #81. N-I. Breaks on 2R-1 (inf): prox. one in F; dist. one in I. F larva. A3 x. 62e.
lpa(2R) 26. #83. R. Breaks on 2R (obs): prox. one in P; dist. one in R. F3 x. 62e. Linked to lpa(2L)5.
lpa(2R) 27. #120A. N-I. Breaks on 2R (obs): prox. one in D; dist. one in A. F larva. B1 x. 63c.
lpa(2R) 29. #154. N-I. Breaks on 2R-1 (inf): prox. one in C; dist. one in R. F larva. Same A3 x as lpa(2R)10 and others. 62f.
lpa(2R) 30. #155. N-I. Breaks on 2R (obs): prox. one in J; dist. one in L. M larva. Same A3 x as lpa(2R)9. 62f.
lpa(2R) 31. #789. N-I. Breaks on 2R (obs): prox. one in F; dist. one in M. A3 x. 62f.
lpa(2R) 32. #210. N-I. Breaks on 2R (obs): prox. one in G; dist. one in J. F larva. Same A3 x as lpa(XR)8 (Levitan 1964) and others. 62f.
lpa(2R) 33. #229. N-I. Breaks on 2R (obs): prox. one in hc; dist. one in P. F larva. In same cells from A3 x as lpa(XR)9 and lpa(XR)10 (Levitan 1964). 62f.
Ipa(2R) 14. #269. N-I. Breaks on 2R (obs): prox. one in M; dist. one in P. M larva. Same A3 x as Ipa(2L)10 (Levitan 1964) and others, 62g.

Ipa(2R) 15. #281. N-I. Breaks on 2R (obs): prox. one in hc; dist. one in O. M larva. Same A3 x as Ipa(2L)28 and others, 62g.

Ipa(2R) 16. #291. N-I. Breaks on 2R (obs): prox. one in hc; dist. one in 0. M larva. Same A3 x as Ipa(2L)28 and others, 62g.

Ipa(2R) 17. #291. N-I. Breaks on 2R (obs): prox. one in hc; dist. one in C. M larva. A3 x. 62g.

Ipa(2R) 18. #326. N-I. Breaks on 2R-1 (obs): prox. one in D; dist. one in H. F larva. A3 x. 62h.


Ipa(2R) 20. #344. N-I. Breaks on 2R (obs): prox. one in hc; dist. one in R. F larva. A3 x. 62h.

Ipa(2R) 21. #370. N-I. Breaks on 2R (obs): prox. one in D; dist. one in C. M larva. Same A1(0.) x as Ipa(2R)21, Ipa(2L)32, and one other, 62j.

Ipa(2R) 22. #372. N-I. Breaks on 2R-1 (obs): prox. one in hc; dist. one in Ii. M larva. Same A1(O.) x as Ipa(2R)20 and same cells as Ipa(2L)32. 62j.


Ipa(2R) 24. #378. R. Breaks on 2R (obs): prox. one in M; dist. one in P. M larva. A1(O.) x. 62k.


Ipa(2R) 26. #432. N-I. Breaks on 2R (obs): prox. one in hc; dist. one in C. F1(N.C.) x. 621. Probably linked to Ipa(2L)5, though the data do not rule out the possibility that it was carried by the N.C. female and linked to 2L-3.

Ipa(2R) 27. #446. R. Breaks on 2R (obs): prox. one in hc; dist. one in G. F1(N.C.) x. 621. Probably linked to Ipa(2L)5, though the data do not rule out the possibility that it was carried by the N.C. female and linked to 2L-3.


Ipa(2R) 29. #501. R. Breaks on 2R (obs): prox. one in P; dist. one in S. In a B3(Va.) and three B1 x’s [in one lpa(2R)30, in another Ipa(2R)31 also present]. 63c. 10±9.5% recombination in an Ipa(2L)S/S.Ipa(2R)29 homokaryous in X and 3.

Ipa(2R) 30. #502. N-I? Breaks on 2R (obs): prox. one in hc; dist. one in R. M larva. In one of the B1 x’s with Ipa(2R)29. 63c.

Ipa(2R) 31. #515. N-I? Breaks on 2R (obs): prox. one in hc; dist. one in Q. F larva. In another B1 x with Ipa(2R)29. 63c.

Ipa(2R) 32. #535. N-I? Breaks on 2R-1 (obs): prox. one in A; dist. one in N. M larva. Same C2 x as Ipa(3L)10. 63c.

Chromosome 3: Left Arm

Ipa(3L) 1. #55. N-I. Breaks on 3L (obs): prox. one in E; dist. one in H. M larva. Same C2 x as Ipa(3L)2 and others [see Ipa(3L)6]. 62c.

Ipa(3L) 2. #58. N-I. Breaks on 3L (obs): prox. one in H; dist. one in J2. F larva. Same C2 x as above, q.v.


Ipa(3L) 6. #402. N-I. Breaks on 3L (obs): prox. one in G; dist. one in E. M larva. Same A1(N.C.) x as Ipa(3L)10 and others (Levitan 1964). 62k.


Ipa(3L) 9. #468. R. Breaks on 3L (obs): prox. one in hc; dist. one in E. F1(Va.) and B1 x’s. 63a.

Ipa(3L) 10. #534. N-I? Breaks on 3L (obs): prox. one in hc; dist. one in E. M larva. Same C2 x as Ipa(3L)10. 63c.

Chromosome 3: Right Arm

Ipa(3R) 1. #4. N-I. Breaks on 3R (obs): prox. one in D; dist. one in F2. M larva. A1(la.) x. 60l.

Ipa(3R) 2. #33. R. Breaks on 3R (obs): prox. one in D; dist. one in F2. D1, I1 and I3 x’s. (I3 x proves it is not from nature.)


Ipa(3R) 4. #486. N-I. Breaks on 3R (obs): prox. one in E; dist. one in F. G larva. B1 x. 63c.

Pericentric Inversions: Chromosome 2

Ipe(2) 1. #11. N-I. Lt. break on 2L-1 (inf) in W; rt. break on 2R-1 (inf) in R. F larva. A3 x. 61g.

Ipe(2) 2. #16. R. Lt. break on 2L (obs) in U; rt. break on 2R (obs) in P. A3 and A1(Va.) x’s. First seen 61h. Persisted in stock many years.

Ipe(2) 3. #44. R. Lt. break on 2L (obs) in A; rt. break on 2R (obs) in F. First seen in same A4 x as Df2 (Levitan 1964). 62b. Persisted in stock many years.

Ipe(2) 4. #57. N-I. Lt. break on 2L-3 (obs) in P; rt. break on 2R (inf) in C. M larva. Same x as Ipa(2L)6, etc. 62c.
Ipe(2)  5. #67. R. Lt. break on 2L (inf) in G1; rt. break on 2R (inf) in hc. A6 x (male from A1, Va.) 62d.
Ipe(2)  6. #72. N-I. Lt. break on 2L-1 (obs) in Q2; rt. break on 2R-1 (obs) in J. F larva. A3 x. 62d.
Ipe(2)  7. #74. N-I. Lt. break on 2L-3 (inf) in C; rt. break on 2R (inf) in M. F larva. A3 x. 62d.
Ipe(2)  (No. 78) R. Probably natural. Lt. break on 2L-4 (obs) in hc; rt. break on 2R (obs) in L. D2 x. 62d.

In stock derived from an inseminated female known to lack both 2L-4 and 78, collected by H.D. Stalker in Wagarville, Washington Co., Ala., 61g18/19.

Ipe(2)  8. #96. R. Lt. break on 2L-1 (obs) in E; rt. break on 2R (obs) in M. C2x. 62e.
Ipe(2)  9. #100. N-I. Lt. break on 2L-3 (obs) in F; rt. break on 2R-1 (obs) in C. F larva. C2 x. 62e.
Ipe(2) 10. #112. R. Lt. break on 2L (obs) in L2; rt. break on 2R (obs) in G. Two C2 x’s; both 62d.
Ipe(2)  11. #138. N-I. Lt. break on 2L-1 (inf) in Q2; rt. break on 2R (obs) in F. M larva. A3 x. 62f.
Ipe(2)  12. #140. N-I. Lt. break on 2L-3 (inf) in W; rt. break on 2R (obs) in D. M larva. C2 x. 62f.
Ipe(2)  14. #143. N-I. Lt. break on 2L-3 (obs) in I; rt. break on 2R (obs) in G. M larva. C2 x. 62f.
Ipe(2)  15. #145. N-I. Lt. break on 2L-1 (inf) in U; rt. break on 2R-1 (inf) in C. F larva. Same A3 x as Ipe(X1)6 (Levitan 1964). 62f.
Ipe(2)  16. #150. N-I. Lt. break on 2L-1 (inf) in W2; rt. break on 2R (obs) in J. M larva. A3 x. 62f.
Ipe(2)  17. #158. N-I. Lt. break on 2L-3 (inf) in A; rt. break on 2R (obs) in M. F larva. Same A3 x as Ipa(2L)23, etc. 62f.
Ipe(2)  18. #173. N-I. Lt. break on 2L-3 (inf) in G2; rt. break on 2R (obs) in J. F larva. A3 x. 62f.
Ipe(2)  19. #178. N-I. Lt. break on 2L-3 (inf) in B; rt. break on 2R (obs) in O. F larva. A3 x. 62f.
Ipe(2)  22. #235. N-I. Lt. break on 2L-3 (inf) in F; rt. break on 2R (obs) in O. F larva. A3 x. 62f.
Ipe(2)  23. #256. N-I. Lt. break on 2L-1 (obs) in A; rt. break on 2R-1 (inf) in C. F larva. Same A3 x as Ipa(2R)15 and others. 62f.
Ipe(2)  24. #262. N-I. Lt. break on 2L-1 (inf) in W; rt. break on 2R-1 (inf) in P. F larva. Same x as Ipa(2L)23, etc. 62h.
Ipe(2)  25. #264. N-I. Lt. break on 2L-1 (obs) in L1; rt. break on 2R (obs) in M. M larva. A3 x. 62g.
Ipe(2)  26. #272. N-I. Lt. break on 2L-3 (obs) in J; rt. break on 2R (obs) in R. F larva. A3 x. 62g.
Ipe(2)  27. #276. N-I. Lt. break on 2L-1 (inf) in B; rt. break on 2R-1 (obs) in R. M larva. A3 x. 62h.
Ipe(2)  28. #280. N-I. Lt. break on 2L-1 (obs) in L1; rt. break on 2R-1 (obs) in O. F larva. Same A3 x as Ipa(2R)15 and others. 62h.
Ipe(2)  29. #287. N-I. Lt. break on 2L-1 (inf) in L1; rt. break on 2R-1 (obs) in K. M larva. A3 x. 62g.
Ipe(2)  30. #290. N-I. Lt. break on 2L-2 (obs) in T; rt. break on 2R (obs) in Q. F larva. A3 x. 62g.
Ipe(2)  31. #310. R. Lt. break on 2L (obs) in L2; rt. break on 2R (obs) in E. A3 x. 62g.
Ipe(2)  32. #320. N-I. Lt. break on 2L (obs) in B; rt. break on 2R (obs) in Q. M larva. A7 x (STy female x male whose mother was from a non-inducer population, father from a STy substrain). 62h.
Ipe(2)  33. #334. N-I. Lt. break on 2L-1 (obs) in P; rt. break on 2R-1 (obs) in K. M larva. A3 x. 62h.
Ipe(2)  34. #343. N-I. Lt. break on 2L (obs) in H; rt. break on 2R (obs) in G. M larva. C2 x. 62h.
Ipe(2)  35. #364. R. Lt. break on 2L (obs) in L1; rt. break on 2R (obs) in D. A1(N,C.) and H3 x’s. First seen 62i.
Ipe(2)  37. #397. R. Lt. break on 2L (obs) in L2; rt. break on 2R (obs) in B. A1(00) x’s. First seen 62k.
Ipe(2)  38. #406. N-I. Lt. break on 2L-3 (obs) in K; rt. break on 2R (obs) in D. M larva. A1(N,C.) x. 62k.
Ipe(2)  39. #409. N-I. Lt. break on 2L-1 (obs) in F; rt. break on 2R (obs) in D. F larva. C3 x. 62k.
Ipe(2)  40. #430. N-I. Lt. break on 2L-1 (inf) in B; rt. break on 2R (obs) in E. Both seen in F1 x’s; has persisted in STy substrains and outcross stocks over 21 years. First seen 62l.
Ipe(2)  41. #450. R. Lt. break on 2L (obs) in L1; rt. break on 2R (obs) in B. First seen in F1 x’s; has persisted in STy substrains and outcross stocks over 21 years. First seen 62l.
Ipe(2)  42. #455. N-I. Lt. break on 2L-2 (obs) in W; rt. break on 2R (obs) in E. M larva. A1(Va.) x. 62l.
Ipe(2)  43. #471. R. Lt. break on 2L (obs) in A; rt. break on 2R (obs) in M. In two male larvae. B1 x. 63b.
Ipe(2)  44. #472. N-I. Lt. break on 2L (obs) in J; rt. break on 2R (obs) in G. M larva. B1 x. 63b.
Ipe(2)  45. #474. R. Lt. break on 2L (obs) in U; rt. break on 2R (obs) in R2. B1 and B3 x’s. First seen 63b.
Ipe(2)  46. #537. R. Lt. break on 2L-1 (obs) in M; rt. break on 2R-1 (obs) in P. In two C2 x’s, both 63c.
Ipe(2)  47. #540. N-I. Lt. break on 2L-1 (inf) in T; rt. break on 2R-1 (inf) in H. F larva. Same C2 x as Ipa(2L)18 and a T(2R:3L) (Levitan 1964). 63c.
Ipe(2)  48. #545. N-I. Lt. break on 2L-3 (obs) in K; rt. break on 2R (inf) in D. F larva. C2 x. 63c.
**Pericentric Inversions: Chromosome 3**

1. #59. N-I. Lt. break in G; rt. break on 3R (obs) in M larva. C2 x. 62c.
3. #241. R. Lt. break in D; rt. break on 3R (obs) in C. A3 x. 62g.
5. #289. N-I. Lt. break in G; rt. break on 3R (obs) in Fl. M larva. Same A3 x as Ipe(2)29. 62g.
8. #511. N-I. Lt. break in G; rt. break on 3R (obs) in M larva. B1 x. 63c.

**Lopez, M.M.** University of Mar del Plata, Argentina. *Drosophila subobscura* has been found in the Atlantic coast of Argentina.

*D. subobscura*, a typical palearctic species, was found in South America in 1978 in Chile (Brncic et al. 1981) and in 1981 in the western region of Argentina (Prevosti 1983) around the Nahuel Huapi lake. This lake is part of a lacustrine system which is a natural Andean pass. No *D. subobscura* were found by the same author in the east of the country (near the city of Buenos Aires).

During 1984, we took samples of *Drosophila* near Mar del Plata, a coastal city situated 400 Km south from Buenos Aires. In our captures, out of 1300 individuals, 26 were *D. subobscura* (i.e., about 2%). We found a considerable seasonal variation, similar to that found in Chile (Budnik et al. 1982). This finding would indicate that the "pampa" plain is not a geographic barrier as suggested by Prevosti (1983). The absence of *D. subobscura* in the sample obtained in 1981 could have been due to: (1) the season when it was taken (not mentioned), and/or (2) colonization after 1981.

**References:** Brncic et al. 1981, Genetica 56: 3-9; Prevosti 1983, DIS 59:103; Budnik & Brncic 1982, Actas V Congreso Latinoamericano de Genetica 177-188.

**Manousis, T.H.** Aristotelian University of Thessaloniki, Greece. Larval saliva in several *Drosophila* species.

Salivary glands as well as isolated saliva of some developmental stages of the late third instar larvae and early prepupae of several *Drosophila* species were analysed by urea-polyacrylamide gel electrophoresis and the main components of the saliva of each species were localized on the zymograms (Fig. 1). There was an attempt to find correlations between the polypeptide content and the hardness of the "glue" in the fixative, the background the larvae pupate on and the degree of their phylogenetic relationship.

The number of the different saliva polypeptidic components seems to have no effect on the pupating behavior of the animals. Larvae with hard and rich in proteins content, tend to pupate on the container

**Table**

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>Drosophila species</th>
<th>Collection area</th>
<th>Stock No</th>
<th>main components of glue</th>
<th>colour of glue in fixative</th>
<th>hardness of glue in fixative</th>
<th>pupariation on the:</th>
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<tr>
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