

expressions of the same mutation. Of the above three *lb* mutations, *lb* and *lb*², have been assigned to chromosome 17. For dwarf mutations, one-, two-, and three-factor inheritance has been reported, but Heiner⁴ concluded that such a character may be determined by a dominant gene. The F₂ data from the cross, cream-yellow-green and normal segregated in a 3:1 ratio, indicating that the mutant character is recessive.

Department of Botany, B. C. GOSWAMI.
Gauhati University,
Gauhati, Assam, March 3, 1975.

1. Bora, K. C. and Rao, N. S., *Intern. Conf. Peaceful Uses At. Energy, Geneva, 1958, 27, 306.*
- *2. Doney, D. L., *M.Sc. Thesis, Utah State Univ., 1961, p. 52.*

3. Goswami, B. C., *Gauhati Univ. Sci. J., 1969, 1970, 1971, 20-22, 2, 223.*
 - *4. Heiner, R. E., *M.Sc. Thesis, Utah State Univ., 1958, p. 58.*
 5. Kasha, K. J. and Walker, G. W. R., *Can. J. Genet. Cytol., 1960, 2, 379.*
 6. Natarajan, A., Sikka, S. M. and Swaminathan, M. S., *Intern. Conf. Peaceful Uses At. Energy, Geneva, 1958, 27, 321.*
 7. Nilan, R. A., *Monographic Suppl. No. 3, Vol. 32, No. 1, Washington State Univ. Press, 1964, p. 278.*
 - *8. Notzl, H., *Kuhn Archiv., 1952, 66, 72.*
 9. Nybom, N., *Acta Agr. Scand., 1954, 4, 430.*
 - *10. Schooler, A. B., *M.Sc. Thesis, Colorado State Univ., 1953, p. 50.*
 11. Verughese, G. and Swaminathan, M. S., *Curr. Sci., 1966, 35, 469.*
- * Original not seen.

SHORT SCIENTIFIC NOTES

Some New Records of Snakes (Reptilia: Serpentes) from Jammu and Kashmir State

During our extensive investigations on the faunistic survey of the herpetiles inhabiting Jammu and Kashmir State, the following species of snakes were recorded from the type localities shown against

each. This, however, adds to the bulk of already known ophidian fauna of the State.

Eighteen species of snakes which are documented in this paper belong to five families and fourteen genera.

Sl. No.	Snake species	Type locality
Family: <i>TYPHLOPIDAE</i>		
1.	<i>Typhlops porrectus</i> Stoliczka	.. Reasi, Udhampur, Kathua and Bhaderwah.
2.	<i>Typhlops braminus</i> (Daudin)	.. Jammu and Udhampur.
Family: <i>BOIDAE</i>		
3.	<i>Eryx conicus</i> (Schneider)	.. Chhamb Sector (Jammu), Kathua, Udhampur and Bhaderwah.
4.	<i>Eryx johni</i> (Russel)	.. Bhaderwah, Kathua, Jammu and Udhampur.
Family: <i>COLUBRIDAE</i>		
5.	<i>Boiga trigonata</i> (Schneider)	.. Bhaderwah, Nagrota (Jammu), Udhampur and Baramullah.
6.	<i>Boiga multifasciatus</i> (Blyth)	.. Udhampur, Jammu, Srinagar, Bhaderwah.
7.	<i>Coluber rhodorachis</i> (Jan)	.. Udhampur, Bhaderwah and Srinagar.
8.	<i>Ptyas mucosus</i> * (Linn.)	.. Reasi, Kathua, Udhampur, Ramnagar (Jammu), Bhaderwah, Uri and Anantnag (Kashmir)
9.	<i>Sphalerosophis articeps</i> (Fisher)	.. Udhampur Kathua and Bhaderwah.
10.	<i>Sphalerosophis arenarius</i> (Boulenger)	.. Jammu and Bhaderwah.
11.	<i>Trachischium fuscum</i> (Blyth)	.. Kathua.
12.	<i>Amphiesma stolata</i> ** (Linn.)	.. Anantnag (Srinagar).
13.	<i>Lycodon travancoricus</i> (Beddome)	.. Jammu, Udhampur and Bhaderwah.
14.	<i>Fowlea piscator</i> (Schneider)	.. Udhampur and Bhaderwah.
Family: <i>ELAPIDAE</i>		
15.	<i>Bungurus coeruleus</i> (Schneider)	.. Udhampur, Kathua, Jammu and Bhaderwah.
16.	<i>Naja naja oxiana</i> (Eichwald)	.. Kathua, Chhamb and Udhampur.
Family: <i>VIPERIDAE</i>		
17.	<i>Echis carinatus</i> (Schneider)	.. Jammu, Kathua and Udhampur.
18.	<i>Vipera russeli</i> (Shaw)	.. Jammu, Kathua, Udhampur and Bhaderwah.

* Common in J and K State.

** Common in Jammu region.

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Triticale Mutants with Amber Coloured Seeds

Proper seed development with attractive colour of the seed coat is a major problem with the existing varieties of triticales. Efforts to solve this problem through pedigree and mutation breeding is in progress at Genetics Division, I.A.R.I. An encouraging result obtained through mutation breeding is reported here.

Seeds of triticale strain S. 141 developed here were treated with aqueous solution of nitrosomethyl urea (NMU). The seeds were soaked in distilled water for 16 hours. Then they were transferred into 0.01% of NMU for 6 hours. Then the seeds were thoroughly washed with water and sown in field to raise the M¹ generation, in 1971-72 rabi. M₂ population of about 20,000 plants derived from selected seeds of 500 M₁ plants was critically screened for seed colour variation. Two plants could be identified which had attractive amber colour and better developed seeds. Isolation of such types marks a significant step in triticale breeding. This forms the first report on progressive mutants of triticale with amber and better filled grain.

Table I gives the comparative idea of the mutants and the control.

TABLE I

Comparison of triticale mutants with the control

Character	Control (S-141)	Mutant-I	Mutant-II
Plant height (cm)	132.50	125.00	130.00
Days to flowering	97	93	92
Days to maturity	159	149	157
Seeds/Spike	72	86	80
Fertility (as %)	61	75	72
Seed coat colour	Brown	Amber	Amber
Seed protein %	14.2	17.8	17.2

Stabilization and evaluation of these mutants is in progress. These are also being used in triticale improvement programme.

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New Delhi-12, April 7, 1975.

1. Joshi, M. G., Bhopal Rao, J. V. R. and Tomar, R. S., "Progress in triticale breeding," Paper presented at The All India Wheat Workers Workshop, New Delhi, September 1973, p. 3.
2. Zillinsky, F. J., "Triticale breeding and research at CIMMYT," *Res. Bull. CIMMYT*, 1973, 24 (Mexico).

ANNOUNCEMENTS

The Mehta Research Institute of Mathematics and Mathematical Physics

With the financial help of Mehta Trust and the grants from the Governments of India and Uttar Pradesh the above Research Institute has been started at 26, Dilkusha, New Katra, Allahabad-2. In the first phase (1975-78) the Institute will devote itself to the following branches of Mathematics:

(1) *Pure Mathematics* :

- (a) Mathematical Analysis,
- (b) Functional Analysis,
- (c) Theory and Methods of Solution of Ordinary and Partial Differential Equations, etc.

(2) *Applications of Mathematics* :

- (a) Environmental Dynamics,
- (b) Probability Theory, Stochastic Processes, Information Theory,
- (c) Mathematical Education,
- (d) Mathematical Models and Techniques in Educational Systems, Evaluation, etc.

3. During the second phase research facilities will be developed in the following branches:

- (a) Non-equilibrium Thermodynamics,
- (b) Quantum Physics, Phase Transitions,
- (c) Relativistic Mechanics, General Relativity.

4. Prof. P. L. Bhatnagar, who is known for his contributions to Applied Mathematics, has taken charge of the Institute as its first Director.