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## The Return of the tri-Fly

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In February, the editor was treated by a visit from **Eric Darnell** who promptly demonstrated the versatility of his popular plastic *tri-Fly* tri-blader (previously referred to as the *Super Zoy*). The composition of Eric's throw kit was almost 50% plastic tri-bladers in one form or another. The figures on the following page illustrate some of his more successful designs. Each figure is reduced 50% and shows the removal of material from the baseline product.

The raw materials are quite inexpensive. You can order Polypropylene blanks from the **Boomerang Man** or from **Eric Darnell's Turning Point** mail order business for approximately \$6 each. The blanks are also available in glow-in-the-dark Polypropylene (\$12), ABS (\$8) and Polycarbonate (\$14) materials. Prices are suggested retail for comparison. The ABS and Polycarbonate materials are heavier and stiffer than Polypropylene. Polypropylene is lighter, but it requires significantly more twisting and bending than the ABS or Polycarbonate materials because it relaxes back into the original shape quicker. Polypropylene is quite forgiving during tuning, but be careful when bending any of these materials in cold weather because they become more brittle.

Without any modifications (other than lots of twisting and bending to add dihedral and angle of attack) the *tri-Fly* is great equipment for beginners and for the Consecutive Catch, Accuracy, and Juggling events. With modifications, the *tri-Fly* becomes a powerful tool for Fast Catch, Endurance, and Doubling and Juggling. Sorry, but you need to look elsewhere for MTA and Aussie Round equipment.

The first modification on the following page is a good F/C trainer. This variation maintains a circular orbit, curving inward and

slowing down at the end of the flight while retaining a high rate of spin with a low altitude hover. No airfoil modifications are required.

The second planform shown is called the *Enduro*. This boomerang is very stable with a very predictable flight path and a constant deceleration. This is obviously Eric's choice for Endurance.

The fastest model is depicted as planform #3. This design is less forgiving and should be used for your second round of F/C for a shot at first place. This is a great boomerang for setting a personal best round.

Modification #4 is Eric's best design for the Accuracy event. This one just dies at the end with a stable drop.

Design #5 is Eric's best equipment for his specialty: *High Wind Fast Catch*. This model is very stable and exhibits excellent loss of spin at the end with a drop into your lap.

Planform #6 should be a familiar sight to those readers who subscribed to *Boomerang Journal* #7. This is the planform used by **Gregory Bisiaux** when he set his Fast Catch World Record at 15.03 seconds. It is not known what subtle modifications Gregory made to the airfoils, but the material was Polypropylene. This was a surprise to Eric as well, because the intended use for this modification was for an inside doubler. The outside doubler is an unmodified *tri-Fly*.

Design #7 is a Fast Catch made out of ABS. It is almost the same as the *Enduro*, except for a narrower chord and a true airfoil with a trailing edge added to speed it up. Designs 1-6 do not have modified airfoils. Eric says to just leave them blunt.

Modification #8 is called *Soft Toss*. This is a very easy boomerang to throw. It is also good for Consecutive Catch, especially for the over hand catch. This model also has a strong trailing edge. The only obvious disadvantage to

this design is that it must be made as either LH or RH.

All models will speed up significantly if you cover up the holes or by adding trailing edges. The addition of weights into the holes may also make *tri-Fly* more competitive in multiple events.

The Polypropylene *tri-Fly* (45 gm) is available in three bright colors: magenta, red orange and gold. The retail price is \$6. Glow in the dark models are \$12. The *Super Zoy Pro* (54 gm) is the ABS version of *tri-Fly*. It comes in bright orange and sells for \$8. The *Bullseye Super Zoy* comes in either clear Polypropylene or ABS with red tips and blue stripes. It is highly visible in the air and is priced to sell at \$15.

The *Soft Toss* (#8) is available in Polypropylene for \$10 or ABS for \$12.

Two doubling sets are available. *Doublers #1* is easier to throw and combines *tri-Fly* with modification #6. Priced at \$16 in Polypropylene and \$20 in ABS. *Doublers #2* are more difficult to throw, but easier to catch; available in Polypropylene for \$20 or ABS for \$24.

The *Enduro Rang* (#2) is available in ABS for \$12. The *High Wind Fast Catch* (#5) is available in ABS for \$12 and the *Fast Catch Rang* (#3) is available in ABS for \$15.

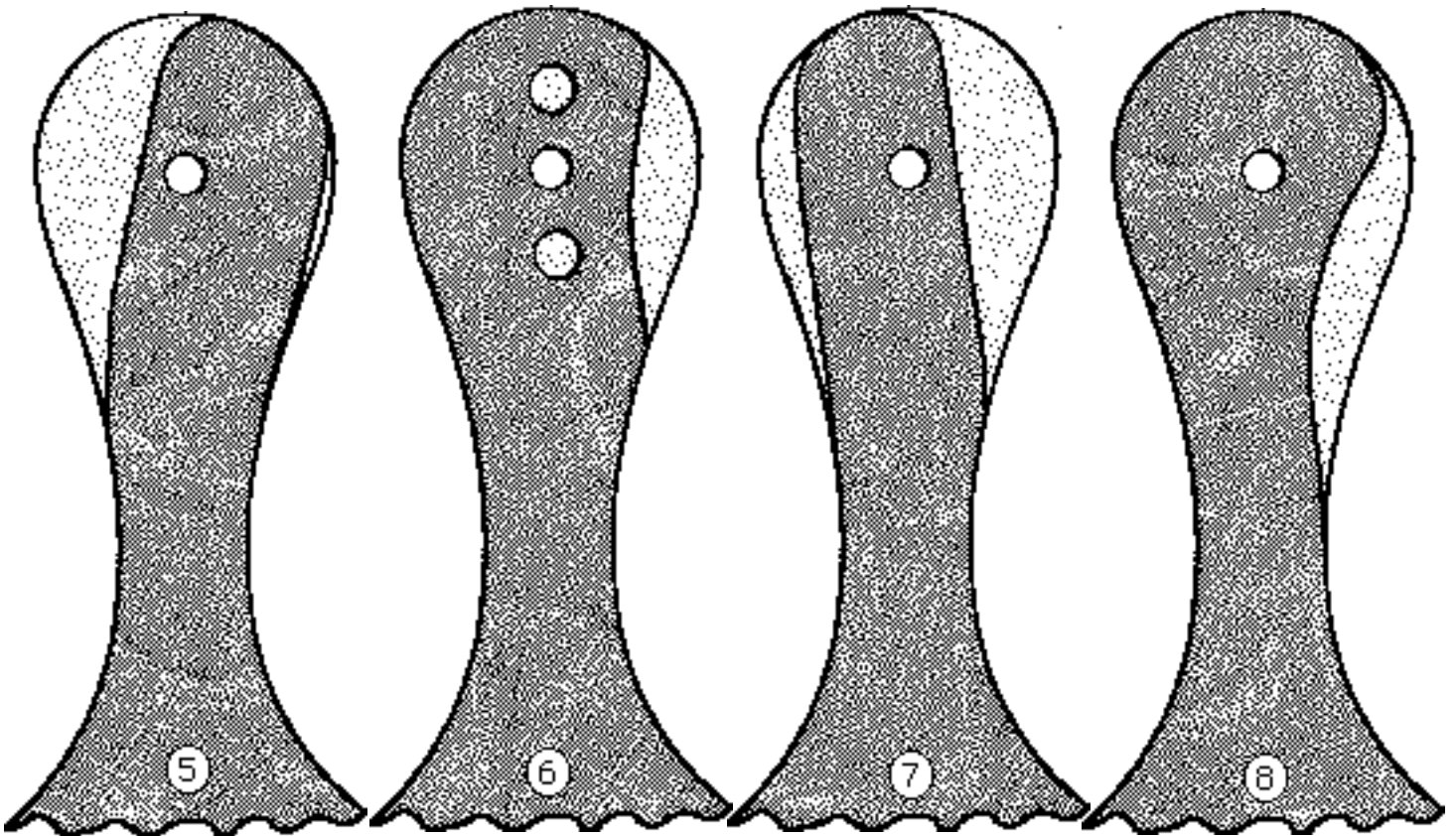
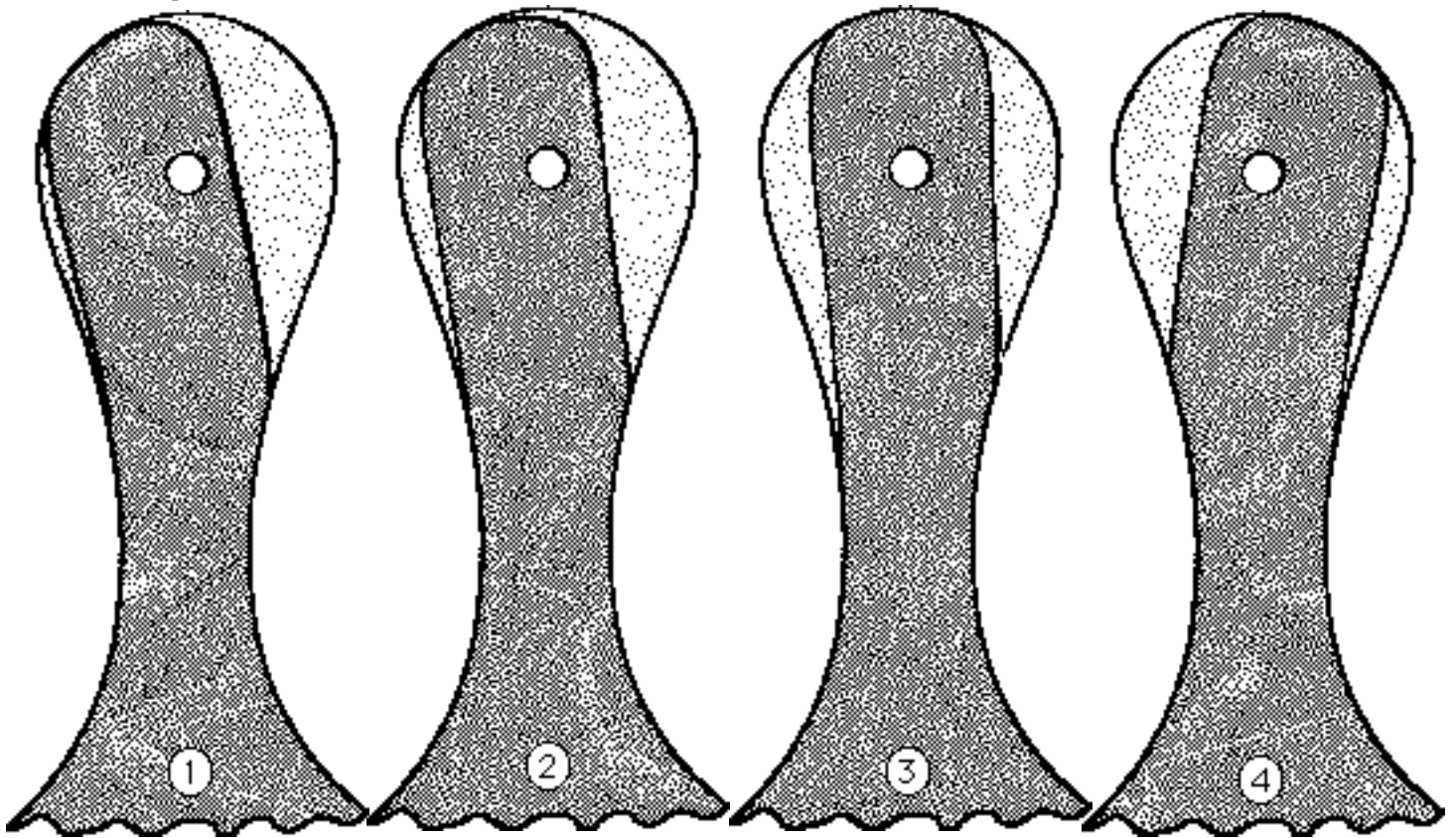
Coming soon will be kits to add weights to these boomerangs. Don't miss out on the new high technology. Write and order your free catalog now.

OK, so how do you add these goodies to your throw kit. A significant percentage of the readers will want to do their own carvings.

The **Boomerang Man** carries *tri-Fly* in his catalog. You may also order *tri-Fly* and the derivative models directly from Eric. For a free catalog, write to:

**Turning Point Boomerangs  
South Strafford, Vt. 05070**

# High Tech Modifications to the Darnell tri-Fly



Original Material Remaining



Material Removed

SCALE 3/4