

- Multiplate samplers are inconsistent in collecting larger numbers of organisms to allow a 200-organism subsample.

RBP kick screens

An advantage of using kick screens is ease of use. SRBC staff has been using traditional RBP methods since 1992 in the subbasin survey and interstate streams projects, and are, thus, very familiar with the process and have a database on which to build. Additionally, kick nets are economical, costing approximately \$100 and can be used for several years before replacing. Another advantage is that a kick net sample does not require colonization time and provides a point-in-time sample. Several disadvantages are discussed below.

- There are depth limitations with the kick nets. The top of the net is approximately three feet high and cannot be used in depths exceeding the top of the net. Thus, most samples must be taken near the shore, in riffle areas, or adjacent to islands.
- Velocity can be an issue with kick nets as they are difficult to control during higher flows.

FUTURE DIRECTIONS

Based on lessons learned from the pilot project, SRBC staff has determined that for future river assessment projects, a combination of rock baskets and RBP methods will be used. Rock baskets will be used as they are effective in sampling deeper waters and produce consistent results. RBP methods also will be used as a comparison to the subbasin survey and interstate stream projects. The vacuum benthic sampler method will not be used in the free-flowing river, as it is difficult to control and inconsistent in collecting larger numbers of macroinvertebrates needed for bioassessment. Multiplate samplers will not be used as they also collect large numbers of macroinvertebrates inconsistently.

In summer 2004, SRBC staff will be sampling a larger portion of the mainstem Susquehanna River and its large tributaries: West Branch Susquehanna; Chemung; and Juniata Rivers. Twenty sites on the mainstem Susquehanna River from Sidney, N.Y., to Marietta, Pa., and one site at the mouth of each of the larger tributaries will be sampled using the methods described above. Staff also will be considering different ways to assess habitat in conjunction with the sampling effort. Additionally, SRBC is interested in determining a sampling protocol for the reservoir system, which encompasses the final 45 miles of the river.

