Weed of Interest: Caper Spurge - *Early Detection is Key to Managing This Toxic Weed*

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Above: Caper spurge stems elongate just before flowering. Photo by A. Senesac

More and more in recent times, we are encountering plants that some are calling 'sleeper weeds.' These are plants that have been in an area for many years in small isolated populations. Then some environmental event or sequence of events triggers a response in these plants to rapidly reproduce and begin to dominate in an ecological niche. We have seen several instances of this kind of plant behavior in recent years on Long Island. In one case, a minor native species called slender three-seeded Mercury (*Acalypha gracilens*) which normally occurs in open woods and on trail edges was suddenly being reported as a serious turf weed. Several landscapers have been reporting this as a summer weed problem. In this case, we believe that the trigger for it to be released as an aggressive weed is that an opportunistic niche is being unintentionally opened in many lawns. Normally herbicides that might control broadleaf weeds like slender three-seeded Mercury are applied to lawns in the spring and sometimes as late as early summer. But these control measures are generally not used in the summer. It appears that *Acalypha gracilens* seed is being moved into turf areas and germinating very late in the season, thus avoiding both pre and post emergence herbicides that might control it. The seed is probably being inadvertently moved by birds and other wildlife into these areas.

Another sleeper weed appears on the precipice of becoming invasive. Caper spurge has recently been found in wooded areas near a municipal refuse transfer site and also in at least one nursery field

Right: Fleshy immature and mature dried seed capsules of caper spurge. Photo by A. Senesac

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in the middle of Suffolk County. This non-native species was introduced into North America from its native Mediterranean sites. Thought to be a rodent repellent and sometimes called mole or gopher plant, it was introduced in some areas on the east and west coast as a natural rodent control measure in orchards. In other areas, it is thought to be an escape from medicinal or herbal gardens. All parts of caper spurge are known to be toxic. The plant produces milky latex sap which can cause dermatitis. Any attempt to hand pull or remove caper spurge should be done with protective gloves. Caper spurge was briefly promoted as a petrol-crop in the 1980s as a potential substitute for fossil fuels. However, after some field trials, it was considered too inefficient to produce fuel compared to other crop candidates and this project was abandoned. It is being actively investigated for its ability to produce powerful anti-inflammatory chemicals as well as other potentially important drug compounds. Caper spurge has had a documented presence in New York State since the 1940s, yet it has not yet become a common weedy presence in any part of the state. However, it has been reported in some surrounding northeastern states as

Four-week-old seedling of caper spurge. Photo by A. Senesac

Euphorbia lathyris (caper spurge)–all parts of the plant are toxic. Photo by A. Senesac

invasive . These days with our heightened awareness of the importance of 'EDRR' (early detection, rapid response) in preventing invasive species from getting established, it is vital to get the word out to scout for this weed at its earliest stages of invasion.

What should we be looking for? Caper spurge is an unusual looking plant. It has a biennial life cycle. In the summer, seeds germinate and grow into small plants with strap-like leaves. Each leaf has a distinctive white mid-rib. These plants will overwinter in a semi-dormant state and begin to grow again in late winter. During the second growing season, the single stemmed plants will rapidly elongate and produce large three-seeded, green fleshy capsules. The capsules eventually ripen, and the dried seeds fall to the nearby soil to germinate immediately in the early summer. If caper spurge is encountered, all plants should be hand removed and placed in plastic bags for disposal. Be sure that protective gloves are worn! Also please record the occurrence of this species by either contacting the diagnostic lab of Cornell Cooperative Extension (631-727-4126) or by recording it at *imapinvasives.org* or *inaturalist.org*. ●