

Conservation Action Plan (CAP):

Tieghemella heckelii (A.Chev.) Pierre ex Dubard

(Sapotaceae)

IUCN status: Endangered (EN)

Status and description of species, habitat and ecology

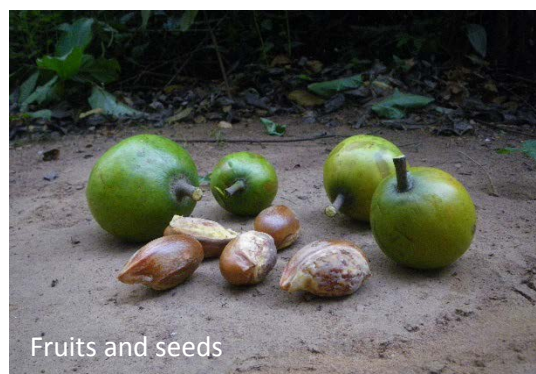
Large forest tree, up to 50 m tall. Leaves alternate, petiolate, without stipules, grouped at the ends of the branches; Leaf-blade obovate or obovate-elliptical, cuneate at base, obtusely acuminate or rounded at apex, 7-18 cm long and 3-7 cm wide, glabrous, shiny above, penninerved, with many lateral veins, obscured. 4-merous flowers, long pedicellate, grouped, 1-3 in the axils of the leaves; calyx with oval lobes, 3 mm long; corolla greenish-white, 8- 16-lobed; stamens 8; ovary 8-locular. Ovoid fruits, up to 8-10 cm long, 2-3-seeded, yellow when ripe.



General distribution: Guinea, Sierra Leone, Côte d'Ivoire, Liberia, Ghana, Nigeria.

Distribution in Guinea: Guinée Forestière: Mts Nimba, Mts Simandou, Mts Ziama and Diécké.

Recent collections: Guinea: Loffa, Adam 3451 ; Nimba Mountains, plot Nimba Botanic Team 1088; Ouest de Pic de Fon, Diallo, B.S.B.23 ; Mt Ziama, Haba, P.M SR. Simandou Range, west of Pic de Fon, Simandou record of presence 120; Nimba Mountains Jongkind, C.C.H. 8022.



Habitat: Lowland evergreen forest.

Phenology:

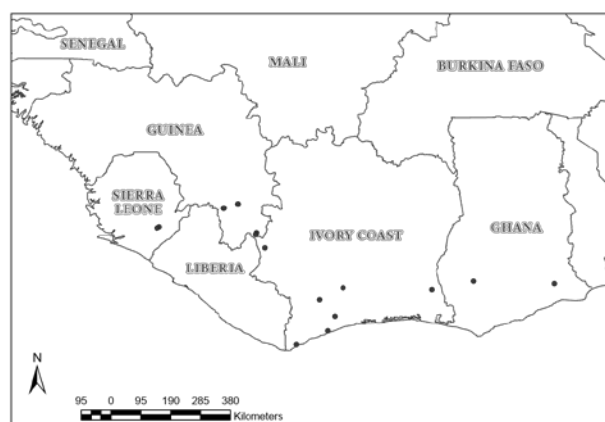
Flowering: January – May

Fruiting: December – February

Population status:

No quantitative population data are available for this species. It is known only from the dense forests of tropical countries (Guinea, Ivory Coast, Ghana, Gabon, Liberia, Nigeria and Sierra Leone).

Tieghemella heckelii is relatively rare in many areas in Liberia, Côte d'Ivoire and Guinea, and is present in low densities, but threatened by forest exploitation. Seeds are dispersed by elephants, which hampers natural regeneration. Evaluated since 1998 on the IUCN list. The number of



Map of regional distribution of *Tieghemella heckelii*.

sites per country is unknown, as well as the number of mature individuals. A subpopulation is found in Guinée Forestière (Banko, Zياما and Yomou), but the number of mature individuals is not recorded.

Identification of threats to the species

Direct threats: deforestation and selective logging.

Indirect threats: Pollution, climate change.

Species management and conservation strategies

It is usually found in low densities, and threatened by forest exploitation. Seeds are dispersed by elephants, which hampers natural regeneration. Research of similar sites in Guinea and a census of the number of surviving individuals is needed. Further ecological studies including seed storage, genetic diversity and biochemistry is also required.

In situ protection

1. This species is present in the Massif du Zياما, Diécké, Nimba Mountains and Southern Simandou Mountains TIPAs. Surveys of similar sites as well as within the TIPAs to find and count individuals present, compare results in numbers of individuals per site.
2. Demarcate the sites (outside of TIPAs) with local authorities and the local population.
3. Write a management plan for the sites and the species in particular.
4. Present the results to the local authorities for agreement and do all necessary to get their approval to obtain a legal act.
5. Present the data and results to the Minister of Environment, Water and Forests for their agreement to grant an act of creation for protection of the sites.
6. After the obtaining of the act, support the local authorities in the protection of the site and species.

Use management (socio-economic species): the wood is harvested and sold commercially.

Ex situ protection

- Develop a propagation protocol for this species by experimentation with different methods (seed, cuttings, seedlings).
- This species could be reintroduced at protected sites within its range and botanic gardens.
- Seed banking: Not recommended as the seeds are recalcitrant.

Legislation

It is recommended to have a conservation act for threatened plant species in Guinea and integrate this into the second edition of the National Biodiversity Action Plan (Monographie Nationale) in progress. In addition, sites of *Tieghemella heckelii* should be protected in Nzérékoré.

Education

- Provide posters for sensitization of the population
- Conduct training workshops with HNG, NGOs, OGuiPAR, mining companies, Forestry representatives and local population building awareness of conservation of the species and sites.
- Communicate via the local radio stations at Nzérékoré, Lola, Beyla and Macenta the need for the conservation of this species and its habitat.

Bibliography

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