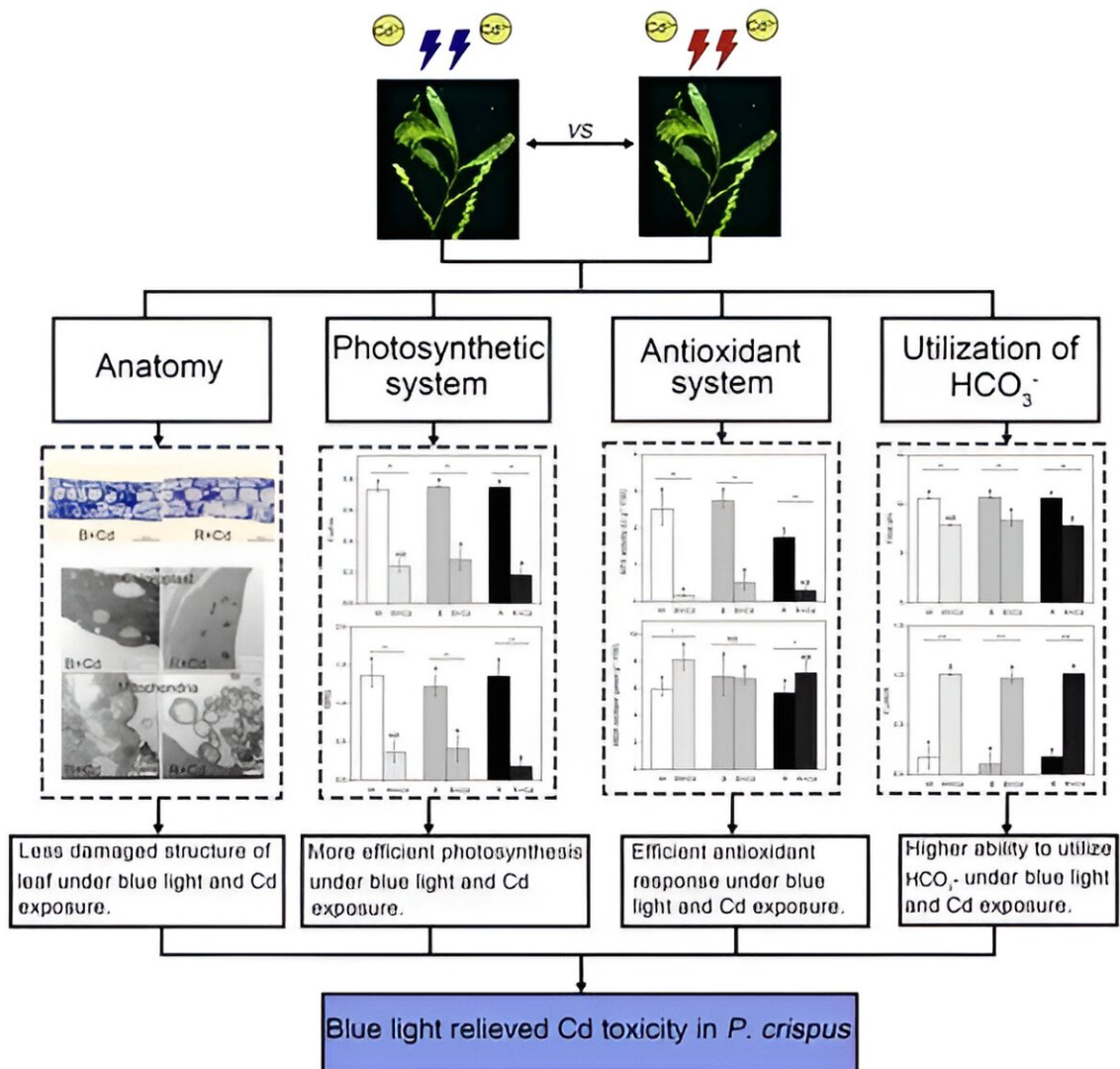


Research indicates blue light enhances cadmium tolerance of aquatic plant

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Graphical abstract. Credit: *Plants* (2023). DOI: 10.3390/plants12142667

Cadmium (Cd), a heavy metal widely distributed in aquatic systems, enters water bodies through the use of phosphorus fertilizers and industrial discharges. Its high mobility in plant systems poses a great threat to human health.

Researchers from the Wuhan Botanical Garden of the Chinese Academy of Sciences evaluated the effects of Cd toxicity on the aquatic plant *Potamogeton crispus* (*P. crispus*) exposed to different light qualities (white, blue, and red light) and elucidated the underlying mechanism. The study, titled "[Blue light enhances cadmium tolerance of the aquatic macrophyte *Potamogeton crispus*](#)," was published in the journal *Plants*.

According to the researchers, Cd induced severe adverse morphological changes and decreased physicochemical properties in *P. crispus*, but the severity of the damage caused by Cd was less pronounced in [blue light](#) when compared to white and red light.

Moreover, the lower level of malondialdehyde (MDA) and less superoxide (O_2^-) implied that the *P. crispus* grown under blue light suffered less oxidative stress compared to white and red light. The increased ascorbate peroxidase activity and non-photochemical quenching coefficient in leaves seemed to be closely related to the higher Cd tolerance in B-grown *P. crispus*.

This study may have important guiding significance for better understanding of physiological changes in aquatic plants, plant protection, or ecological restoration.

More information: Shanwei Wang et al, Blue Light Enhances Cadmium Tolerance of the Aquatic Macrophyte *Potamogeton crispus*, *Plants* (2023). [DOI: 10.3390/plants12142667](https://doi.org/10.3390/plants12142667)

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