

Fig. 26. Panoramic view of Mt. Seewarte, with indication of the lithostratigraphic units. The Seewarte section has been measured at the base of the mountain, form north to south (left to right in the photo).

## 3.3.6. Stop 13 – Seewarte section

The Seewarte section (Fig. 26) is located along the northwestern and western base of Mt. Seewarte, starting from the western end of the Wolayer valley, and continuing south across the state border, at coordinates N 46°36'44.5", E 12°52'21.4" (base).

The section is the type section of the four formation of the shallow water sequence exposed:

- Seekopf Fm. (SUTTNER et al., 2015). Lithology: well-bedded nodular and lithoclastic limestone to dolostone in the lower part, and peloidal and crinoidal pack- grain and rudstones in the upper part. A megaclast horizon, dated at the base of the Pragian, occur in the central part of the unit. Thickness: about 120 m. Age: uppermost Silurian? to Pragian (Upper *Oul. el. detortus-Pel. serratus* zones).

- Hohe Warte Fm. (BANDEL et al., 2015). Lithology: thick-bedded echinoderm-rich grainstone and rudstone in the lower part and massive reefal limestone interbedded with crinoid grainstone and rudstone in the upper part. Thickness: about 250 m. Age: Pragian-?lower Emsian.

- Seewarte Fm. (POHLER et al., 2015a). Lithology: dark grey fossiliferous limestone, slightly dolomitic in places. Thickness: about 40 m. Age: lower Emsian.

- Lambertenghi Fm. (POHLER et al., 2015b). Lithology: well-bedded grey fossiliferous limestones intercalated with laminated yellow-stained dolostone beds; meter-long red mudstone layers, birdseye structures, graded bedding, flat-pebble lithoclasts and cavities lined with fibrous calcite are common. Thickness: about 110 m. Age: Emsian.

In terms of chronostratigraphy, the following boundaries have been recognised along the section:

- The Silurian/Devonian boundary is located in the lowermost part of the section at the base of sample 01/03.

- The Lochkovian/Pragian boundary is traced in the central part of the Seekopf Fm., at the base of the megaclast horizon, where Icriodus steinachensis beta morph is present (SUTTNER, 2007).

- The Pragian/Emsian boundary is tentatively traced in the uppermost part of the Hohe Warte Fm., or at the transition between the Hohe Warte and the Seewarte formations.

References: BANDEL (1972), SUTTNER (2007).

## 3.3.7. Stop 14 – Rifugio Lambertenghi Fontana section

The Rifugio Lambertenghi Fontana (RLF) section (Fig. 27) is located about 100 m south of the mountain hut in the eastern side of the valley, along the path reaching Rifugio Lambertenghi Romanin from the south, at coordinates N 46°26'22.6" E 12°52'07.8". About 18 m of Orthoceras limestone belonging to the Alticola Fm. are here exposed.



Fig. 27. a) Panoramic view of the valley south of Pass Wolayer, with location of Rifugio Lambertenghi Fontana (RFL; stop 14) and Rifugio Lambertenghi Fontana III (RLF III; stop 15) sections; b) View of the Rifugio Lambertenghi Fontana section.

The section starts with about three meters of highly fossiliferous reddish limestones, where fossil remains are mainly represented by crinoids, brachiopods, cephalopods and bivalves, often fragmented and packed together at the centimeter scale. A covered interval corresponding to a World War I trench is present in the lower part of the section. The central part of the section comprises grey micritic limestone rich in orthoceratid nautiloids; concentrations of small crinoidal debris are observable in some levels, as well as a few brachiopod casts. The fossiliferous content strongly decreases above sample RLF 6 and only a few poorly preserved cephalopods occur in the upper part of the section, where the colour of the rock frequently grades to red due to weathering. A mineralised horizon, bearing hematite and limonite, occurs just above sample RLF 9.

The age of the sections ranges from the Ped. latialata/Oz. snajdri interval Zone to the Lower Oul. el. detortus Zone. The Ludlow/Pridoli boundary is approximately traced around sample RLF 6, where the last occurrence of Oz. crispa is documented. References: CORRADINI & CORRIGA (2010).