

Arròs Negre (Catalan Squid-Ink Rice, with Allioli Negat)

Three hundred grams of bomba rice cooked in cephalopod-forward caldo, deepened with four tablespoons of cuttlefish ink until the rice turns black as obsidian, finished with socarrat on the bottom of a wide paellera and a hidden pool of garlic-ink allioli on top. The fourth pillar of Pablo's Spanish rice pedagogy — paella's dry technique married to the cephalopod tradition of the Mediterranean coast. Eat it with a white napkin you don't mind staining.

Protein Cuttlefish (sepia) or squid (calamares) + optional supplementary shrimp ·

Serves 4 - 6 as main · 300 g dry bomba base

Difficulty Intermediate-Advanced

Active 55 min (25 min cephalopod prep + sofrito / 18 min cook / 10

Total 1 h 5 min

THE STORY

The Black Rice of the Costa Brava

Arròs negre is the dry sibling of paella, colored black by cuttlefish ink and built on the same technical foundation: wide thin paellera, sofrito base, caldo added once, no stir, socarrat on the bottom. It belongs to the same Catalan-Valencian rice tradition as paella valenciana, arroz caldoso con bogavante, and fideuà — four dishes, one technique, four completely different eating experiences. Each taught at Pablo's table completes the pedagogy.

The ink does two things at once. First, it turns the rice obsidian-black, which is the visual signature of the dish and the reason dinner guests go quiet for a second when the paellera comes to the table. Second, it carries saline-mineral depth that amplifies the cephalopod broth the rice is cooking in — ink is not just pigment; it is a concentrated flavor agent, rich in glutamate and rich in the ocean itself. Four tablespoons is the correct Catalan ratio for 300 g of rice. Less and the color goes gray-brown; more and the rice goes bitter. The ink goes in during the last stage with the caldo, never earlier — premature ink exposure to high heat turns chalky and flat.

The cephalopod breakdown is the quiet hero of the recipe. Cuttlefish (sepia) is the classical choice because its flesh is thicker and more forgiving than squid; squid works but is more fragile and needs shorter cook times. Reserve the ink sacs. Reserve the trimmings. The trimmings go into the caldo (15 minutes with shrimp shells + fish fumet + bay + leek) to build a cephalopod-forward broth; the ink goes in during the cook; the flesh is seared separately, set aside, and returned for the last three minutes so it doesn't turn to rubber. This staged treatment is what separates a great arròs negre from a passable one.

The allioli negat — the "drowned" garlic-ink emulsion — is the traditional accompaniment. A small bowl of allioli with a tablespoon of ink folded through, served on the side, goes on top of each serving in a single spoonful that melts into the rice. The visual contrast (black rice, black-flecked allioli) is part of the dish's drama. Non-classical, but encouraged: a small quenelle of allioli on top of the serving, and let guests pull it through.

Pair with the Catalan white-wine tradition: Xarel·lo, Godello, or a dry Txakoli. For contemporary presentations, a chilled Palo Cortado sherry is unexpected and excellent.

Specs

YIELD 4-6 as main · 300 g dry bomba base	RICE Bomba (DOP Calasparra or Valencia)	LIQUID RATIO 2.5 : 1 caldo to rice (dry, like paella)	INK 4 Tbsp cuttlefish ink (per 300 g rice)
DIFFICULTY Intermediate- Advanced ●●●●○	ACTIVE TIME 55 min	COOK TIME 18 min (uncovered, no stir)	MAKE-AHEAD Sofrito + caldo up to 24 h; rice is à la minute
CARDINAL RULE Ink goes in with caldo — never before, never during stir			

UMAMI ADAPTATION

What Changed & Why

Arròs negre is specifically a Catalan coastal dish — born in the ports of the Costa Brava and the Valencian coast. Substitutions to navigate: if fresh cephalopod with ink sacs is unavailable, Nortindal jarred ink is an excellent backup (4 Tbsp = ~24 g). Frozen squid from a reputable fishmonger is acceptable; frozen cuttlefish from an Asian supermarket is often high-quality and cheaper than fresh. The dish does NOT adapt to Arborio or sushi rice — structural rice chemistry is wrong; the dish becomes porridge. If you cannot source bomba, postpone until you can. The allioli negat is the traditional accompaniment but the dish is complete without it; serve mojo rojo (UMAMI-9) as an alternative if allioli feels too classical.

CHANGE	ORIGINAL	UMAMI VERSION	WHY
v 1 . 0	Classical Catalan arròs negre	Full recipe with Pablo's 300 g / 750 ml bomba ratio + Nortindal ink backup + allioli negat on side	Closes UMAMI-11 rice pedagogy quartet (paella + caldoso + fideuà + arròs negre)

INGREDIENTS

What You Need

Everyday

Everyday Tier — Whole Foods + Specialty Grocer

- Cuttlefish or squid — 500-600 g cleaned (fresh from good fishmonger, or Whole Foods frozen squid as backup)
- Cuttlefish ink — 4 Tbsp jarred (La Tienda, Despaña, or quality Italian jarred ink; ~6 g sachets × 4)
- Raw shrimp in shell (optional) — 8-10 count, 250 g; heads + shells for caldo
- Fish fumet base — 800 ml homemade or Aneto / Knorr concentrated fish stock
- Bomba rice — 300 g (Mercado Little Spain, La Tienda, or Whole Foods Spanish aisle)
- Yellow onion — 1 large, finely minced
- Ripe tomato — 2 medium, grated (box grater over bowl, discard skins)
- Garlic — 4 cloves finely minced
- Leek whites — 1 leek, cleaned and minced
- Italian flat-leaf parsley — small bunch
- Arbequina olive oil — 4 Tbsp cooking + extra for finishing
- Saffron — 0.3 g (Whole Foods small tins; Persian or La Mancha)
- Smoked paprika (pimentón dulce) — 1 tsp

No Limits

No-Limits Tier — Premium Specialty Sources

- Fresh cuttlefish (sepia) from Honolulu Fish Co or Casamar Miami — 600 g, whole with intact ink sacs (harvest your own ink — ~8 g per sac, 4 sacs = 4 Tbsp)
- Backup premium jarred ink — Nortindal or La Huerta de San Pedro (Spanish-direct, deeper color than Italian) — 4 Tbsp
- Live Gulf pink shrimp from Casablanca Seafood Miami — 8-10 count, 300 g; shells + heads are essential for caldo
- Homemade fumet — 1.5 L from wild snapper frames + cuttlefish trimmings + leek + bay, 45-minute simmer, strained through fine mesh
- Bomba DOP Calasparra from La Tienda or Despaña Brand Foods — 300 g, matte-finish grain (short, pearl-white)
- Saffron from Pablo's sourcing registry — La Mancha DOP Category I, 0.3 g toasted briefly in dry pan then bloomed
- Pimentón de la Vera DOP dulce — 1 tsp (smoky, not Hungarian sweet paprika — flavor profile completely different)
- Arbequina from Castillo de Canena or Oro Bailén — 5 Tbsp cooking + drizzle finish

EQUIPMENT

Your Kit

- Paellera (wide thin carbon-steel paella pan) · 38-42 cm for 4-6 servings
- Fine-mesh chinois or conical strainer for caldo
- Mortar and pestle for ink-allioli + picada (small)

MISE EN PLACE

Before You Start

- Clean cephalopod. Separate ink sacs into small bowl, cover with 2 Tbsp water. Trim cartilage and beak. Reserve trimmings for caldo. Cut bodies into 2 cm rings + tentacles whole.
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- Build caldo: simmer shrimp shells + heads + cephalopod trimmings + leek tops + bay + 1.2 L water 25 min. Strain through chinois. Hold at low simmer. Yield ~900 ml.

- Mince aromatics: onion fine, garlic fine, leek whites fine. Grate tomatoes over bowl.

- Toast saffron 20 sec dry pan over medium heat until fragrant. Crush between fingertips into 2 Tbsp hot caldo. Bloom.

- Measure 300 g bomba. Have ink sacs + jarred ink ready. Have 2.5:1 caldo ratio (750 ml) measured.

MAKE - AHEAD

Timeline

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METHOD

The Cook

1 Phase 1 · Cephalopod Breakdown + Ink Harvest (25 min)

1. Lay cuttlefish or squid on cutting board. Identify ink sac — slender silver-gray tube running along body cavity. Using fingers + small knife, gently separate ink sac without puncturing. Drop sacs into small bowl with 2 Tbsp water. Cover.
2. Remove cartilage (clear plastic-like strip for squid; bone for cuttlefish). Discard beak and eyes. Reserve trimmings (skin, wings, tentacle nubs) for caldo.
3. Cut cleaned bodies into 2 cm rings. Leave tentacles whole. Pat dry with paper towels — moisture = steam = rubber.
4. In large pot, combine trimmings + shrimp shells + shrimp heads + leek tops + bay leaf + 1.2 L cold water. Bring to simmer, 25 min. Strain through fine-mesh chinois into clean pot. Hold at low simmer. Yield ~900 ml.
5. Puncture ink sacs with tip of paring knife, strip ink into reserved water. Combine with 2 Tbsp jarred ink if using backup. Total: 4 Tbsp ink fluid. Set aside at room temperature.



WHY THIS WORKS

Cephalopod flesh contains high levels of myosin-paramyosin (tropomyosin) protein, which contracts violently at 60 °C+ and stays rubbery until broken down by long braising (2+ hours) OR cooked very quickly (under 2 min) at high heat. Arròs negre relies on the quick-cook path: sear briefly, remove, return only at the very end. Ink is ~85% water + ~10% melanin + ~5% glutamate-amino-acid complex. It adds umami depth alongside pigment.

2

Phase 2 · Sofrito Foundation (18-22 min)

1. Paellera over medium-low heat. Add 4 Tbsp olive oil. When shimmering, add minced onion + leek whites + pinch of salt.
2. Reduce heat to low. Cook onions 15-18 minutes, stirring every 2-3 minutes. They should go from translucent to golden-amber, slowly, without browning. This is the flavor foundation — do not rush it.
3. Add minced garlic. Cook 30 seconds until fragrant — do not brown.
4. Add grated tomato. Increase heat to medium. Cook 5-6 minutes, stirring often, until tomato breaks down completely and the mass turns a deep brick-red.
5. Add 1 tsp pimentón dulce. Stir 10 seconds off-heat to prevent scorching.



WHY THIS WORKS

Sofrito is the enzymatic-and-Maillard foundation of almost all Spanish savory cooking. Slow-cooked aromatics break down cell walls, release bound sugars, and allow Maillard browning of both onion and tomato sugars. This builds the glutamate-rich base that the rice will eventually absorb. The pimentón must go in off-heat — its capsanthin pigment is heat-sensitive and will scorch to bitter black above 140 °C in dry oil.

3

Phase 3 · Cephalopod Sear + Rice Cook (18 min)

1. Heat cast-iron or stainless pan (separate from paellera) over high heat. Add 1 Tbsp olive oil. When smoking, add cephalopod rings + tentacles in one layer. Sear 45-60 seconds per side — light browning, not fully cooked. Remove immediately to bowl.
2. Return to paellera. Add bomba rice to sofrito. Toast 2 minutes over medium heat, stirring to coat every grain in oil + sofrito. Rice should turn translucent at edges, pearly at core.
3. Pour in 750 ml hot caldo (2.5:1 ratio). Add bloomed saffron liquid. Add all 4 Tbsp ink — stir ONCE to distribute, then NEVER STIR AGAIN.
4. Adjust heat to medium-high. Rice should bubble vigorously. Cook uncovered 10 minutes, rotating paellera 90° on burner every 2 minutes for even heat distribution. Do not stir.
5. After 10 minutes, reduce heat to low. Scatter seared cephalopod + optional shrimp evenly across surface. Cook 6 more minutes on low — rice absorbs remaining liquid + develops socarrat on bottom.
6. Final 2 minutes: increase heat to medium-high to force socarrat. Listen for audible crackling sound — this is rice browning against hot pan. Total cook: 18 minutes. Remove from heat.



WHY THIS WORKS

Bomba rice has 22-25% amylose (vs 15% for Arborio), making it the most absorbent rice variety commonly used in Spanish cooking — it holds its shape + absorbs 3× its volume in liquid without blowing out. The no-stir rule prevents the exterior starch from being released; unlike risotto, *arròs negre* should never be creamy. The socarrat is the rice-to-pan contact caramelization, produced at 170-180 °C surface temperature in the final 2 minutes. Ink integration late (not during sofrito) protects its sulfur-containing amino acid compounds from pyrolysis, which would turn them bitter.

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Phase 4 · Rest + Allioli Negat + Service (10 min)

1. Let the paellera rest 5 minutes uncovered. This is not optional. Rice continues cooking via residual heat; grains finish absorbing the last 10% of caldo; socarrat sets.
2. During rest: in mortar, pound 2 cloves raw garlic + pinch of salt to paste. Add 1 egg yolk. Drop-by-drop, drizzle 150 ml olive oil while grinding with pestle, until emulsion tightens. Fold in 1 Tbsp reserved ink + squeeze of lemon. This is the allioli negat.
3. Bring paellera directly to table. Set trivet. Place allioli negat in small bowl alongside with a spoon.
4. Serve directly from the pan. Each serving: 1 generous scoop of rice with cephalopod + socarrat flakes from bottom. Guests top with a spoonful of allioli negat — it melts into the rice, creating visual and flavor contrast.
5. Have white wine open. Drink the Xarel·lo. Stain the napkins.



WHY THIS WORKS

Rest-phase equilibration is critical for rice dishes — during cook, the grain exterior is saturated while the core is still firm. 5 min off-heat allows moisture to redistribute inward, producing the characteristic bomba texture: firm but not al dente, tender but not mushy. The allioli emulsion is classic oil-in-water lipid emulsion stabilized by egg-yolk lecithin; ink addition at the end preserves its salinity without breaking the structure.

QUICK REFERENCE

Timing Cheat Sheet

STEP	TIME	CUE
Cephalopod breakdown + caldo start	T- 6 0 min	Ink sacs reserved, caldo simmering
Sofrito begins	T- 3 0 min	Onions golden, 15-18 min minimum
Cephalopod sear (separate pan) + tomato in sofrito	T- 1 5 min	Flesh lightly seared, set aside; tomato broken down
Rice toast + caldo + ink add	T- 1 8 min	Rice coated, caldo added once, ink folded, no stir

STEP	TIME	CUE
Final rest + allioli on top	T+ 0 min	Socarrat detected by audible crackle; 5 min rest; table service

TROUBLESHOOTING

Emergency Protocols

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DEEP DIVES

Technique Notes

Cephalopod Ink Integration

FUNDAMENTAL

Ink is a late-stage addition. Add with caldo, never with sofrito. Pre-exposure to the 140 °C+ sofrito dry-phase turns ink chalky and bitter — it contains sulfur compounds that pyrolyze quickly. The ink-and-caldo bath at 95-100 °C preserves its saline glutamate character and integrates it into the rice gel structure. Four tablespoons per 300 g rice is the Catalan ratio. Less = gray; more = bitter.

Staged Cephalopod Protection

PROTEIN TIMING

Cuttlefish and squid proteins denature violently at 60 °C+ and stay rubbery until either (a) briefly cooked under 2 minutes, or (b) slow-braised 90+ minutes. Arròs negre uses path A: sear 45-60 sec, remove, return for final 6 minutes of rice cooking when the caldo environment is under 95 °C. This produces tender flesh in a dish that cooks for 18 minutes total. Compare to chipirones-en-su-tinta (UMAMI-4) which uses the 90-minute braise path.

Bomba vs Arborio vs Calasparra

STARCH SCIENCE

All three are short-grain high-amylose rices, but they behave differently. Bomba (22-25% amylose) absorbs 3× its volume without breaking — ideal for paella-family dishes that must hold grain integrity. Arborio (15% amylose) releases starch easily — ideal for risotto mantecatura. Calasparra is a regional DOP variant of bomba, slightly more absorbent. For arròs negre, bomba is non-substitutable; Arborio will turn to porridge.

Socarrat Formation

CARAMELIZATION

Socarrat is the golden-black caramelized rice layer on the bottom of the paellera. It forms only when (a) rice touches dry pan surface at 170-180 °C, (b) no liquid remains to prevent contact, (c) heat is pushed up in the final 2 minutes. Listen for the audible crackle — once it starts, you have 90 seconds before it burns. Cross-ref paella-valenciana for the full socarrat technique.

Allioli Negat (Drowned Garlic Emulsion)

EMULSION

Classical mortar-and-pestle allioli with ink folded through. The emulsion is stable garlic-oil-yolk lecithin lipid structure; ink adds saline color without breaking it. Serve on the side, not mixed into the rice. Guests add a spoonful on top — the contrast (black rice, black-flecked white allioli) is part of the dish's drama. Cross-ref allioli-tm6 (UMAMI-5) for TM6 method.

Caldo-to-Rice Ratio (2.5:1 Dry Family)

FUNDAMENTALS

Arròs negre uses the same 2.5:1 liquid ratio as paella valenciana and fideuà — this is the dry rice family. Compare to arroz caldoso bogavante (4:1, brothy) and risotto carnaroli (6:1 added gradually). The 2.5:1 number is not approximate; it is the precise amount that bomba absorbs to leave dry, firm grains with socarrat underneath. Measure.

Wide Pan Geometry

EQUIPMENT PHYSICS

Paellera width controls rice layer depth. 38-42 cm pan + 300 g rice produces a 1-1.5 cm layer — the correct depth for even heat penetration, socarrat formation, and no-stir cook. Narrow deep pans produce uneven rice (bottom overcooked, top undercooked). Never use a Dutch oven or sauté pan for paella-family rice — the geometry is wrong.

PAIRING

What to Drink

White

Xarel·lo (Catalan Penedès) — Gramona, Albet i Noya

Native Catalan grape; bright mineral acidity cuts the richness of the rice + allioli

White

Godello (Valdeorras) — Rafael Palacios As Sortes

Galician freshness + stone-fruit weight; matches the cephalopod mineral character

Sparkling

Cava Gran Reserva Brut Nature — Recaredo, Gramona Celler Batlle

Traditional Catalan pairing; yeasty toast notes complement saffron + socarrat

Sherry

Palo Cortado — Lustau Almacenista or Valdespino Cardenal

Unconventional but transcendent: oxidative nutty depth matches ink + allioli on a contemporary table

Beer

Estrella Damm or Alhambra Reserva 1925

Casual Catalan service; crisp lager cleans the palate between bites

Non-alc

Sparkling water + lemon twist + pinch of salt

Saline + acid reset; don't try to compete with the rice's intensity

CONTEXT

Menu Ideas

Opener

Swordfish Ceviche with Bottarga (UMAMI-2) — bright raw fish to contrast the coming depth

Parallel

Gazpacho Andaluz (UMAMI-5) — cold start that makes room for heavy mains

Dessert

Helado de Aceite de Oliva con Maldon (UMAMI-5) — EVOO ice cream, savory-sweet bridge

YOUR NOTES

Cook Log

Session Notes

Date: _____ · Serves: ____ · Rating: __ / 5

Use this space to record what you changed, what worked, and what you'd do differently next time. Your future self will thank you.



Stop following recipes. Start understanding food.

